DOCUMENT RESUME

ED 277 589 SE 047 691

TITLE	Directory of Science Training Programs for High Ability Precollege Students. 1987.
INSTITUTION	Science Service, Inc., Washington, D.C.
SPONS AGENCY	National Science Foundation, Washington, D.C.
PUB DATE	87
NOTE	37p.; Small, single spaced print may affect legibility.
AVAILABLE FROM	Science Service, Inc., 1719 N St., NW, Washington, DC 20036 ($1.00).
PUB TYPE	Reference Materials - Directories/Catalogs (132)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Academically Gifted; Career Guidance; *Science Careers; Science Education; *Science Programs; Secondary Education; *Secondary School Science; *Summer Science Programs

ABSTRACT

Designed to help students develop interest in careers in the mathematical, physical, medical, biological, social, or engineering sciences, this directory lists programs which are intended to contribute to precollege students' academic development. These science training programs serve to provide talented high school students with educational opportunities in science, engineering, and mathematics beyond those normally available in courses or laboratory work in the students' schools. The types of training offered are described and explanations are given on how to use the directory. A reference guide lists the institutions by state and identifies the type of program sponsored. Complete descriptions of each institution's programs are presented alphabetically by state. Also provided are descriptions of the programs conducted by Science Service, Inc. These consist of the Westinghouse Science Talent Search and the International Science and Engineering Fair. (ML)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED277589

1987
DIRECTORY
of
SCIENCE TRAINING PROGRAMS
for
High Ability Precollege Students

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

E. J. Blackmore Jr.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Science Service, Inc.
1719 N Street, NW
Washington, DC 20036

SE 047 691

ATTENTION

School Principals
Science Teachers
Guidance Counselors

Please make this directory available to high-ability students who have, or who you think may develop interests in careers in the mathematical, physical, medical, biological, social, or engineering sciences. Additional single copies may be obtained by sending $1.00 to:

Science Service, Inc.
1719 N Street, NW
Washington, DC 20036

1987

DIRECTORY

of

SCIENCE TRAINING PROGRAMS

for

High Ability Precollege Students

Science Service, Inc.
1719 N Street, NW
Washington, DC 20036

Publication made possible by a grant from the
National Science Foundation

TABLE OF CONTENTS

PAGE

INTRODUCTION i

TYPES OF TRAINING OFFERED i

UNDERSTANDING THE DIRECTORY iii

REFERENCE GUIDE v

PROGRAM LISTINGS 1-23

PROGRAMS CONDUCTED BY SCIENCE SERVICE

INTERNATIONAL SCIENCE AND ENGINEERING FAIR 25

SCIENCE TALENT SEARCH 25

DIRECTORY OF STUDENT SCIENCE TRAINING PROGRAMS

INTRODUCTION

This directory lists the institutions which Science Service was able to locate that are conducting student science training programs in 1987. It replaces the annual directory published formerly by the National Science Foundation. In 1982, Science Service assumed the task of publication because of the importance of student science training programs. This directory will be sent to more than 21,000 schools.

We hope that publication of the directory will help interested students to find programs which will contribute to their academic development. We also hope that it will encourage other institutions to develop student science training programs so that thousands more students can participate in such programs.

TYPES OF TRAINING OFFERED

Student science training programs are designed to provide talented high school students with educational opportunities in science, engineering, and mathematics beyond those normally available in courses or laboratory work in the students' schools. The primary means of accomplishing this is by bringing outstanding students into contact with the instructional staff, research personnel, and general resources of colleges, universities, and research institutions (private, industrial, and government).

Programs are offered at different times throughout the year:

- **Summer:** primarily in the months of June, July, and August. The duration ranges from approximately one week to ten weeks. Many institutions offer more than one session, enabling the student to study several subject areas over the summer.
- **Academic Year:** during the school year. Most institutions operate with two semesters, with coursework completed each semester. Typically the fall semester begins in September and ends in December and the spring semester begins in January and ends in May. Actual dates vary and you should contact the particular institution of interest for specific dates and application deadlines. Some institutions operate on a trimester basis, meaning they offer three sessions during the school year. Students can usually participate in one or all sessions offered.
- **Year Round:** both summer and academic year. Students usually have the option of participating for the entire year, the academic year only, or the summer only. In this directory, dates are usually given only for the summer and the institution should be contacted for specific dates during the academic year.

There are three types of programs:

- **Research:** involves the students as junior associates of a research team or as principal investigators on a problem of appropriate difficulty, under the direct supervision of an experienced research scientist. This type of activity is generally of more benefit to students with a strong background who can be assigned to a single problem for the duration of the project.
- **Courses:** provide students with academic experiences not available in their schools for some reason (too high level, too few students interested, lack of qualified teachers, budget, etc.). They may consist of courses specially designed for the program, regular early college courses, advanced placement courses, regular high school courses, or remedial courses.
- **Research/Courses:** provide course instruction in combination with offering students the opportunity to do some sort of research.

Most programs take place on college campuses, but they also may be at hospitals, research institutes, industrial laboratories, or in the field.

- **Commuter:** are those programs which take students who live in the local area and who commute each day and return home at night.
- **Residential:** take students from outside the local area and house and feed them, generally in college facilities.
- **Commuter/Residential:** take both commuters and residential students who come from outside the local area.

UNDERSTANDING THE DIRECTORY

GRADE LEVEL

Most programs also indicate a minimum grade level for participants. Where it is specified in the directory, grade level usually means the student must be currently at the grade level named (that is, he or she has passed the previous grade). For example, a summer course for 11th grade students means the student must have passed 10th grade for admission to the program.

QUALIFICATIONS

Admission to these programs is determined by the sponsoring institutions, not by Science Service, which is simply making the information available nationwide.

In general, admission is based on a combination of scholastic ability, completion of certain courses, high school teacher, principal, and/or counselor recommendations, and motivation. In some cases, programs give preference to minorities. Some institutions have established very specific selection criteria, such as a certain grade point average (GPA) or a GPA based on science courses which the student has taken.

ESTIMATED COSTS AND SCHOLARSHIPS

In most cases students are expected to pay their own expenses for room, board, travel, and tuition. A number of programs have scholarship funds available to help students who could not attend otherwise. Applicants must make their financial needs known when they fill out application forms for the institution they wish to attend. Most scholarships are based on financial need. However, some are based on academic achievement. In cases where there are no costs to students, scholarships are not applicable (n/a).

INQUIRIES AND APPLICATIONS

Prospective applicants should obtain more detailed information about individual programs and request application forms from the contacts named in each entry in the directory. A post card or telephone call is usually sufficient. Early application is encouraged. Most programs have application deadlines two or three months prior to the initial date of the program.

NOTE

Programs are listed in this directory as a convenience to interested students and schools. Listing does not constitute a recommendation by Science Service, which takes no responsibility for the organization or administration of these programs. We wish to thank all who contributed information to this directory and apologize for any errors or omissions.

Interested students should **always write to or call the sponsoring organizations for complete information** about the programs.

REFERENCE GUIDE

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
ALABAMA			
ALABAMA STATE UNIVERSITY	Summer Commuter	Research	1
AUBURN UNIVERSITY AT MONTGOMERY	Year Round Commuter	Courses	1
BIRMINGHAM-SOUTHERN COLLEGE	Summer Commuter/Residential	Courses	1
GEORGE WASHINGTON UNIVERSITY	Summer Commuter	Courses	1
STILLMAN COLLEGE	Summer Residential	Both	1
UNIVERSITY OF ALABAMA	Summer Commuter/Residential	Courses	1
UNIVERSITY OF ALABAMA AT BIRMINGHAM	Summer Commuter	Research	1
ARIZONA			
ARIZONA STATE UNIVERSITY	Year Round Commuter/Residential	Courses	1
UNIVERSITY OF ARIZONA	Summer Commuter/Residential	Courses	1
ARKANSAS			
UNIVERSITY OF ARKANSAS AT LITTLE ROCK	Summer Commuter	Courses	1
UNIVERSITY OF ARKANSAS, FAYETTEVILLE	Summer Commuter	Courses	1
UNIVERSITY OF ARKANSAS, FAYETTEVILLE	Summer Commuter/Residential	Research	1
CALIFORNIA			
CALIFORNIA INSTITUTE OF TECHNOLOGY	Year Round Commuter/Residential	Both	2
CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS	Summer Commuter	Courses	1
CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS	Academic Year Commuter	Courses	1
CALIFORNIA STATE UNIVERSITY, FULLERTON	Academic Year Commuter	Courses	1
CALIFORNIA STATE UNIVERSITY, FULLERTON	Summer Commuter	Courses	1
CALIFORNIA STATE UNIVERSITY, LOS ANGELES	Summer Commuter	Both	1
CALIFORNIA STATE UNIVERSITY, LOS ANGELES	Year Round Commuter	Both	1
HARVEY MUDD COLLEGE	Summer Residential	Both	2
NATIONAL CENTER FOR EXCELLENCE IN EDUCATION	Summer Residential	Both	2
OCCIDENTAL COLLEGE	Summer Residential	Both	2
PEGASUS PROGRAMS, INC. AND THE UNIVERSITY OF CALIFORNIA, IRVINE (2)	Summer Commuter/Residential	Courses	2
ROCKWELL INTERNATIONAL SCIENCE CENTER	Academic Year Commuter	Research	1
THE THACHER SCHOOL	Summer Residential	Both	2
UNIVERSITY OF CALIFORNIA, DAVIS	Summer Commuter/Residential	Both	2
UNIVERSITY OF CALIFORNIA, DAVIS	Summer Commuter	Courses	1
UNIVERSITY OF CALIFORNIA, DAVIS	Summer Residential	Courses	2
UNIVERSITY OF CALIFORNIA, IRVINE	Academic Year Commuter	Courses	2
UNIVERSITY OF CALIFORNIA, SANTA BARBARA (2)	Academic Year Commuter	Courses	2
UNIVERSITY OF CALIFORNIA, SANTA BARBARA (2)	Summer Residential	Courses	2
UNIVERSITY OF SOUTHERN CALIFORNIA	Summer Commuter/Residential	Both	2
UNIVERSITY OF SOUTHERN CALIFORNIA	Year Round Commuter	Research	2
UNIVERSITY OF SOUTHERN CALIFORNIA	Summer Commuter	Courses	2
UNIVERSITY OF THE PACIFIC	Summer Commuter/Residential	Both	2
COLORADO			
AMERICAN INDIAN SCIENCE AND ENGINEERING SOCIETY	Summer Residential	Courses	2
COLORADO STATE UNIVERSITY	Summer Residential	Research	2
COLORADO STATE UNIVERSITY	Summer Commuter/Residential	Courses	2
CROW CANYON ARCHAEOLOGICAL CENTER	Summer Residential	Both	3
UNITED STATE AIR FORCE ACADEMY	Summer Residential	Courses	3
UNIVERSITY OF SOUTHERN COLORADO	Year Round Commuter/Residential	Research	2
CONNECTICUT			
EASTERN CONNECTICUT STATE UNIVERSITY	Academic Year Commuter	Courses	3
PROJECT OCEANOLOGY	Year Round Commuter	Research	3
SAINT JOSEPH COLLEGE	Academic Year Commuter/Residential	Courses	3
SAINT JOSEPH COLLEGE	Academic Year Commuter/Residential	Research	3
SOUTHERN CONNECTICUT STATE UNIVERSITY	Academic Year Commuter	Courses	3
WESTERN CONNECTICUT STATE UNIVERSITY	Academic Year Commuter	Courses	3
DELAWARE			
UNIVERSITY OF DELAWARE	Summer Residential	Courses	3
DISTRICT OF COLUMBIA			
AMERICAN UNIVERSITY	Summer Commuter	Courses	3
GALLAUDET UNIVERSITY	Summer Residential	Both	3
GEORGE WASHINGTON UNIVERSITY	Year Round Residential	Both	3
GEORGE WASHINGTON UNIVERSITY (2)	Year Round Commuter/Residential	Courses	3
GEORGE WASHINGTON UNIVERSITY	Summer Commuter	Both	3
HOWARD UNIVERSITY	Summer Residential	Courses	3
FLORIDA			
BARRY UNIVERSITY	Summer Commuter	Research	3
FLORIDA A&M UNIVERSITY	Summer Commuter	Courses	3
FLORIDA A&M UNIVERSITY	Year Round Commuter	Both	3
FLORIDA INSTITUTE OF TECHNOLOGY	Summer Commuter	Both	4
FLORIDA STATE UNIVERSITY	Summer Residential	Both	4
MARTIN COUNTY HIGH SCHOOL	Summer Commuter	Both	4
NEW COLLEGE OF UNIVERSITY OF SOUTH FLORIDA	Summer Residential	Both	4
NOVA UNIVERSITY OCEANOGRAPHIC CENTER	Summer Commuter	Research	4
STETSON UNIVERSITY	Summer Residential	Courses	4
STETSON UNIVERSITY	Summer Commuter/Residential	Courses	4
UNIVERSITY OF FLORIDA	Summer Residential	Both	4
UNIVERSITY OF SOUTH FLORIDA (5)	Summer Commuter	Courses	4
UNIVERSITY OF SOUTH FLORIDA	Year Round Commuter	Research	4
GEORGIA			
ARMSTRONG STATE COLLEGE	Year Round Commuter/Residential	Courses	5
AUGUSTA COLLEGE	Year Round Commuter/Residential	Courses	5
GEORGIA INSTITUTE OF TECHNOLOGY	Summer Residential	Both	5
GEORGIA INSTITUTE OF TECHNOLOGY	Summer Commuter	Both	4

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
GEORGIA STATE UNIVERSITY	Summer Commuter	Courses	4
GEORGIA STATE UNIVERSITY	Year Round Commuter	Courses	4
MORRIS BROWN COLLEGE	Summer Residential	Both	5
MORRIS BROWN COLLEGE (2)	Summer Commuter	Courses	4
PIEDMONT COLLEGE	Year Round Commuter/Residential	Courses	5
UNIVERSITY OF GEORGIA	Summer Residential	Research	5
WEST GEORGIA COLLEGE	Year Round Commuter	Courses	4
HAWAII			
UNIVERSITY OF HAWAII AT HILO	Summer Residential	Both	5
IDAHO			
UNIVERSITY OF IDAHO (2)	Summer Residential	Courses	5
ILLINOIS			
BRADLEY UNIVERSITY	Summer Commuter	Courses	5
BRADLEY UNIVERSITY, ILLINOIS CENTRAL COLLEGE AND TRI-COUNTY URBAN LEAGUE, INC.	Year Round Commuter/Residential	Courses	5
CHICAGO STATE UNIVERSITY (2)	Summer Residential	Research	6
ILLINOIS INSTITUTE OF TECHNOLOGY	Summer Commuter	Courses	5
MACMURRAY COLLEGE	Summer Commuter/Residential	Courses	5
NORTHERN ILLINOIS UNIVERSITY (2)	Summer Commuter/Residential	Courses	5
NORTHWESTERN UNIVERSITY	Summer Residential	Both	6
SAINT XAVIER COLLEGE	Summer Commuter	Courses	5
SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE	Summer Commuter/Residential	Courses	5
UNIVERSITY OF ILLINOIS AT CHICAGO	Summer Commuter/Residential	Both	5
UNIVERSITY OF ILLINOIS AT CHICAGO	Summer Commuter	Courses	5
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	Summer Residential	Courses	6
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	Summer Residential	Both	6
INDIANA			
BALL STATE UNIVERSITY (2)	Summer Residential	Courses	6
BALL STATE UNIVERSITY	Summer Residential	Research	6
EARLHAM COLLEGE	Summer Commuter/Residential	Courses	6
EARLHAM COLLEGE	Academic Year Commuter	Courses	6
INDIANA STATE UNIVERSITY	Summer Commuter/Residential	Courses	6
ROSE-HULMAN INSTITUTE OF TECHNOLOGY	Summer Residential	Courses	6
ROSE-HULMAN INSTITUTE OF TECHNOLOGY	Summer Residential	Both	6
TRI-STATE UNIVERSITY (3)	Summer Residential	Both	6
TRI-STATE UNIVERSITY	Year Round Commuter/Residential	Courses	6
WABASH COLLEGE	Year Round Commuter	Courses	6
IOWA			
BUENA VISTA COLLEGE	Summer Residential	Both	6
IOWA STATE UNIVERSITY	Summer Residential	Courses	6
UNIVERSITY OF DUBUQUE	Summer Residential	Courses	7
UNIVERSITY OF IOWA	Summer Residential	Both	7
UNIVERSITY OF NORTHERN IOWA AND MALCOLM PRICE LABORATORY SCHOOL	Summer Commuter	Both	6
KANSAS			
UNIVERSITY OF KANSAS	Summer Commuter/Residential	Courses	7
KENTUCKY			
BEREA COLLEGE	Summer Residential	Both	7
CENTRE COLLEGE	Summer Residential	Courses	7
NORTHERN KENTUCKY UNIVERSITY	Year Round Commuter	Courses	7
WESTERN KENTUCKY UNIVERSITY	Summer Residential	Courses	7
LOUISIANA			
LOUISIANA STATE UNIVERISTY	Summer Residential	Courses	7
LOUISIANA STATE UNIVERSITY	Summer Commuter/Residential	Both	7
LOUISIANA STATE UNIVERSITY MEDICAL CENTER	Summer Commuter	Research	7
LOYOLA UNIVERSITY-NEW ORLEANS	Year Round Commuter/Residential	Courses	7
MCNEESE STATE UNIVERSITY	Summer Commuter/Residential	Both	7
TULANE UNIVERSITY	Year Round Commuter/Residential	Courses	7
UNIVERSITY OF NEW ORLEANS	Summer Commuter	Courses	7
MAINE			
COLBY COLLEGE	Academic Year Commuter	Courses	7
HIRAM COLLEGE THROUGH SHOALS MARINE LABORATORY	Summer Residential	Both	7
THE JACKSON LABORATORY	Summer Residential	Research	8
UNIVERSITY OF MAINE	Academic Year Commuter	Courses	7
UNIVERSITY OF MAINE AT PRESQUE ISLE	Academic Year Commuter	Courses	7
MARYLAND			
GEORGE WASHINGTON UNIVERSITY	Summer Commuter		
HOOD COLLEGE	Summer Commuter	Both	8
HOOD COLLEGE	Year Round Commuter	Courses	8
JOHNS HOPKINS UNIVERSITY	Year Round Commuter/Residential	Courses	8
SAINT MARY'S COLLEGE OF MARYLAND	Academic Year Commuter	Courses	8
TOWSON STATE UNIVERSITY	Year Round Commuter/Residential	Courses	8
U.S. NAVAL ACADEMY	Summer Residential	Courses	8
UNIVERSITY OF MARYLAND	Summer Commuter/Residential	Courses	8
UNIVERSITY OF MARYLAND	Year Round Commuter	Both	8
WESTERN MARYLAND COLLEGE	Summer Residential	Courses	8
MASSACHUSETTS			
BOSTON COLLEGE	Summer Commuter/Residential	Courses	8
BOSTON COLLEGE	Year Round Commuter	Courses	8
BOSTON UNIVERSITY	Summer Commuter/Residential	Research	8
BRANDEIS UNIVERSITY	Academic Year Commuter/Residential	Research	8
BRANDEIS UNIVERSITY	Academic Year Commuter	Courses	8
HAMPSHIRE COLLEGE	Summer Residential	Courses	9
MASSACHUSETTS INSTITUTE OF TECHNOLOGY (2)	Summer Residential	Courses	9

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
MOUNT HOLYOKE COLLEGE	Summer Commuter/Residential	Courses	8
MOUNT HOLYOKE COLLEGE	Summer Residential	Courses	9
NORTHEASTERN UNIVERSITY	Summer Commuter	Courses	8
NORTHEASTERN UNIVERSITY	Year Round Commuter	Courses	8
NORTHEASTERN UNIVERSITY	Summer Residential	Courses	9
NORTHEASTERN UNIVERSITY	Year Round Commuter/Residential	Both	8
RADCLIFFE COLLEGE (IN COOPERATION WITH HARVARD SUMMER SCHOOL)	Summer Commuter/Residential	Courses	8
SPRINGFIELD COLLEGE	Summer Commuter	Research	8
SUFFOLK UNIVERSITY AND THE MUSEUM OF SCIENCE AT BOSTON	Summer Residential	Courses	9
WESTERN NEW ENGLAND COLLEGE	Summer Residential	Courses	9
WORCESTER POLYTECHNIC INSTITUTE	Summer Residential	Both	9
MICHIGAN			
EASTERN MICHIGAN UNIVERSITY	Summer Residential	Courses	9
GMI ENGINEERING & MANAGEMENT INSTITUTE	Summer Residential	Courses	9
GRAND VALLEY STATE COLLEGE	Summer Residential	Both	9
HIRAM COLLEGE, HIAWATHA CAMPUS	Summer Residential	Both	9
HOPE COLLEGE	Summer Commuter/Residential	Courses	9
MICHIGAN STATE UNIVERSITY	Summer Commuter/Residential	Research	9
MICHIGAN TECHNOLOGICAL UNIVERSITY	Summer Residential	Courses	9
OAKLAND UNIVERSITY (2)	Summer Commuter	Research	9
UNIVERSITY OF MICHIGAN (2)	Summer Residential	Courses	10
UNIVERSITY OF MICHIGAN	Summer Commuter	Research	9
UNIVERSITY OF MICHIGAN, DEARBORN	Summer Commuter	Both	9
WAYNE STATE UNIVERSITY	Year Round Commuter	Research	9
WESTERN MICHIGAN UNIVERSITY	Summer Residential	Both	10
WESTERN MICHIGAN UNIVERSITY	Summer Commuter/Residential	Courses	9
MINNESOTA			
AUGSBURG COLLEGE	Summer Commuter	Courses	10
BETHEL COLLEGE	Academic Year Commuter/Residential	Courses	10
CARLETON COLLEGE	Summer Commuter/Residential	Courses	10
GUSTAVUS ADOLPHUS COLLEGE	Year Round Commuter/Residential	Courses	10
GUSTAVUS ADOLPHUS COLLEGE	Academic Year Commuter	Courses	10
GUSTAVUS ADOLPHUS COLLEGE	Summer Residential	Courses	10
GUSTAVUS ADOLPHUS COLLEGE (4)	Summer Commuter/Residential	Courses	10
MINNESOTA ZOO	Summer Commuter	Both	10
UNIVERSITY OF MINNESOTA, DULUTH	Summer Residential	Courses	10
UNIVERSITY OF MINNESOTA, MORRIS	Summer Residential	Courses	10
MISSISSIPPI			
JACKSON STATE UNIVERSITY (2)	Year Round Commuter/Residential	Courses	10
MISSISSIPPI STATE UNIVERSITY	Summer Commuter/Residential	Both	11
MISSISSIPPI STATE UNIVERSITY	Year Round Commuter/Residential	Both	11
MISSISSIPPI UNIVERSITY FOR WOMEN	Summer Commuter/Residential	Courses	11
MISSISSIPPI VALLEY STATE UNIVERSITY	Summer Commuter/Residential	Both	11
UNIVERSITY OF SOUTHERN MISSISSIPPI	Summer Residential	Both	11
MISSOURI			
DRURY COLLEGE	Summer Commuter	Research	11
NORTHEAST MISSOURI STATE UNIVERSITY	Summer Residential	Courses	11
NORTHEAST MISSOURI STATE UNIVERSITY	Summer Residential	Research	11
THE SCHOOL OF THE OZARKS	Summer Commuter/Residential	Courses	11
UNIVERSITY OF MISSOURI, ROLLA	Summer Residential	Courses	11
MONTANA			
MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY (MONTANA TECH)	Summer Residential	Courses	11
NEBRAKSA			
UNIVERSITY OF NEBRASKA AT OMAHA	Year Round Commuter	Courses	11
UNIVERSITY OF NEBRASKA MEDICAL CENTER	Summer Residential	Both	11
NEW JERSEY			
COLLEGE GIFTED PROGRAMS AT BLAIR ACADEMY, BLAIRSTOWN	Summer Residential	Courses	12
COLLEGE OF SAINT ELIZABETH	Academic Year Commuter	Courses	11
COOK COLLEGE AT RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY	Summer Commuter/Residential	Both	12
DREW UNIVERSITY	Summer Residential	Both	12
GEORGE WASHINGTON UNIVERSITY	Summer Commuter	Both	11
MONMOUTH COLLEGE	Academic Year Commuter	Courses	11
MONTCLAIR STATE COLLEGE	Year Round Commuter	Courses	11
NEW JERSEY INSTITUTE OF TECHNOLOGY	Summer Commuter	Courses	11
RAMAPO COLLEGE OF NEW JERSEY	Academic Year Commuter	Courses	11
STEVENS INSTITUTE OF TECHNOLOGY	Year Round Residential	Courses	12
STEVENS INSTITUTE OF TECHNOLOGY	Summer Residential	Courses	12
STEVENS INSTITUTE OF TECHNOLOGY (2)	Summer Commuter/Residential	Courses	12
TRENTON STATE COLLEGE	Summer Commuter/Residential	Both	12
UPSALA COLLEGE	Year Round Commuter	Courses	12
WILLIAM PATERSON COLLEGE	Year Round Commuter	Courses	12
NEW MEXICO			
NEW MEXICO TECH (3)	Summer Residential	Both	12
NEW MEXICO TECH	Summer Residential	Research	12
NEW MEXICO TECH (2)	Summer Residential	Courses	12
NEW YORK			
ADELPHI UNIVERSITY	Year Round Commuter	Both	12
ALFRED UNIVERSITY, NYS COLLEGE OF CERAMICS	Summer Residential	Courses	15
BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK (2)	Year Round Commuter	Courses	12
CLARKSON SCHOOL	Academic Year Commuter	Courses	12

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
CLARKSON SCHOOL/CLARKSON UNIVERSITY	Summer Residential	Both	15
CLARKSON UNIVERSITY	Academic Year Commuter/Residential	Courses	14
COLUMBIA UNIVERSITY	Academic Year Commuter	Courses	13
HAMILTON COLLEGE	Academic Year Commuter	Courses	13
HUNTER COLLEGE, CITY UNIVERSITY OF NEW YORK	Year Round Commuter	Research	13
HUNTER COLLEGE, CITY UNIVERSITY OF NEW YORK	Academic Year Commuter	Courses	13
JOHN JAY COLLEGE OF CRIMINAL JUSTICE (CUNY)	Academic Year Commuter	Courses	13
LONG ISLAND UNIVERSITY, BROOKLYN CAMPUS	Summer Commuter	Research	13
LONG ISLAND UNIVERSITY, C.W. POST CAMPUS (2)	Summer Commuter/Residential	Research	14
LONG ISLAND UNIVERSITY, SOUTHAMPTON CAMPUS	Summer Residential	Research	15
MANHATTAN COLLEGE	Year Round Commuter/Residential	Courses	14
MANHATTAN COLLEGE	Summer Commuter/Residential	Courses	14
MANHATTAN COLLEGE ROOSEVELT HIGH SCHOOL	Academic Year Commuter	Courses	13
MARIST COLLEGE	Summer Commuter/Residential	Courses	14
NATIONAL CENTER FOR EXCELLENCE IN EDUCATION	Summer Residential	Both	15
NEW YORK ACADEMY OF SCIENCES	Year Round Commuter	Research	13
NEW YORK INSTITUTE OF TECHNOLOGY	Year Round Commuter	Courses	13
NORTHEAST RESOURCE CENTER FOR SCIENCE AND ENGINEERING AT CITY COLLEGE	Summer Commuter	Courses	13
PACE UNIVERSITY, DYSON COLLEGE OF ARTS & SCIENCES, PLEASANTVILLE/BRIARCLIFF CAMPUS	Academic Year Commuter	Both	13
PACE UNIVERSITY, DYSON COLLEGE OF ARTS & SCIENCES	Summer Commuter/Residential	Both	14
PRATT INSTITUTE (2)	Year Round Commuter/Residential	Courses	14
ROBERTS WESLEYAN COLLEGE	Summer Commuter	Research	13
ROSWELL PARK MEMORIAL INSTITUTE	Summer Commuter/Residential	Both	14
SAINT BONAVENTURE UNIVERSITY	Year Round Commuter/Residential	Courses	14
SAINT JOHN'S UNIVERSITY	Summer Commuter	Courses	13
SIENA COLLEGE	Summer Commuter/Residential	Courses	14
SOUTHAMPTON COLLEGE OF LONG ISLAND UNIVERSITY	Summer Residential	Courses	15
STATE UNIVERSITY COLLEGE AT BUFFALO	Summer Residential	Research	13
STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION	Year Round Commuter	Both	13
STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION (2)	Year Round Commuter	Courses	13
STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION (2)	Year Round Commuter	Research	13
STATE UNIVERSITY OF NEW YORK AT BUFFALO	Academic Year Commuter	Courses	13
STATE UNIVERSITY OF NEW YORK AT OSWEGO	Academic Year Commuter	Courses	13
STATE UNIVERSITY OF NEW YORK AT PLATTSBURGH	Year Round Commuter	Courses	13
STATE UNIVERSITY OF NEW YORK AT STONY BROOK	Summer Commuter	Research	14
STATE UNIVERSITY OF NEW YORK COLLEGE AT BROCKPORT	Academic Year Commuter	Courses	14
STATE UNIVERSITY OF NEW YORK HEALTH SCIENCE CENTER AT SYRACUSE	Summer Residential	Research	15
STATE UNIVERSITY OF NEW YORK, THE COLLEGE AT NEW PALTZ	Summer Commuter	Courses	14
SUFFOLK COUNTY COMMUNITY COLLEGE	Year Round Commuter	Courses	14
SYRACUSE UNIVERSITY	Academic Year Commuter	Courses	14
THE CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK	Academic Year Commuter	Courses	14
THE CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK	Year Round Commuter	Both	14
UNION COLLEGE	Summer Commuter/Residential	Courses	14
UNITED STATES MILITARY ACADEMY	Summer Residential	Both	15
UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK	Summer Commuter/Residential	Courses	14
UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK	Academic Year Commuter	Courses	14
UNIVERSITY CENTER AT BINGHAMTON	Summer Commuter/Residential	Research	14
UNIVERSITY CENTER AT BINGHAMTON	Summer Commuter/Residential	Both	15
NORTH CAROLINA			
APPALACHIAN STATE UNIVERSITY (3)	Summer Residential	Both	15
BENNETT COLLEGE AND NORTH CAROLINA A&T STATE UNIVERSITY	Summer Residential	Courses	15
DAVIDSON COLLEGE	Summer Residential	Courses	15
DUKE UNIVERSITY (2)	Summer Residential	Courses	15
FAYETTEVILLE STATE UNIVERSITY	Summer Commuter	Courses	15
LIVINGSTONE COLLEGE	Summer Residential	Courses	15
MARS HILL COLLEGE	Summer Residential	Both	16
NORTH CAROLINA SCHOOL OF SCIENCE AND MATHEMATICS	Academic Year Residential	Both	16
NORTH CAROLINA WESLEYAN COLLEGE	Summer Commuter	Courses	15
UNIVERSITY OF NORTH CAROLINA (6 CAMPUSES: WILMINGTON, EAST CAROLINA UNIVERSITY, NORTH CAROLINA CENTRAL UNIVERSITY, UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE, APPALACHIAN STATE UNIVERSITY, AND WESTERN CAROLINA UNIVERSITY)	Summer Residential	Both	16
UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE (2)	Summer Residential	Courses	16
UNIVERSIY OF NORTH CAROLINA AT WILMINGTON	Summer Residential	Both	16
WINGATE COLLEGE	Summer Commuter	Courses	15
OHIO			
ASHLAND COLLEGE	Summer Commuter/Residential	Both	17
BALDWIN-WALLACE COLLEGE	Year Round Commuter	Courses	16
CASE WESTERN RESERVE UNIVERSITY	Year Round Commuter	Courses	16
CASE WESTERN RESERVE UNIVERSITY	Summer Commuter	Courses	16
CASE WESTERN RESERVE UNIVERSITY	Summer Commuter/Residential	Courses	17
CENTRAL STATE UNIVERSITY	Year Round Commuter	Research	16
CLEVELAND STATE UNIVERSITY	Year Round Commuter	Courses	16
CLEVELAND STATE UNIVERSITY	Year Round Commuter/Residential	Courses	17
DEFIANCE COLLEGE	Year Round Commuter	Courses	16
HEIDELBERG COLLEGE	Year Round Commuter	Courses	16
HIRAM COLLEGE	Summer Commuter	Courses	16
HIRAM COLLEGE (2)	Summer Commuter/Residential	Both	17
MIAMI UNIVERSITY (2)	Summer Residential	Courses	17
MUSKINGUM COLLEGE	Summer Commuter	Courses	16
MUSKINGUM COLLEGE	Academic Year Commuter	Courses	16
MUSKINGUM COLLEGE	Summer Commuter/Residential	Courses	17
OHIO STATE UNIVERSITY	Summer Commuter/Residential	Both	17
OHIO STATE UNIVERSITY (2)	Summer Commuter/Residential	Courses	17

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
OHIO UNIVERSITY	Summer Residential	Courses	17
OHIO UNIVERSITY	Summer Commuter	Courses	16
RIO GRANDE COLLEGE	Summer Commuter	Courses	16
UNIVERSITY OF AKRON	Summer Residential	Both	17
WALSH COLLEGE	Summer Commuter	Courses	16
WALSH COLLEGE	Year Round Commuter	Courses	16
OKLAHOMA			
OKLAHOMA STATE UNIVERSITY (CO-SPONSORED BY THE NATIONAL ENDOWMENT FOR THE HUMANITIES)	Summer Residential	Both	17
SOUTHWESTERN OKLAHOMA STATE UNIVERSITY	Summer Commuter/Residential	Courses	17
UNIVERSITY OF OKLAHOMA BIOLOGICAL STATION	Summer Residential	Both	17
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER	Summer Commuter/Residential	Courses	17
OREGON			
EASTERN OREGON STATE COLLEGE	Summer Residential	Courses	18
OREGON MUSEUM OF SCIENCE AND INDUSTRY (2)	Summer Residential	Both	18
OREGON MUSEUM OF SCIENCE AND INDUSTRY	Summer Residential	Courses	18
PORTLAND STATE UNIVERSITY	Academic Year Commuter	Courses	17
REED COLLEGE	Year Round Commuter	Both	17
UNIVERSITY OF PORTLAND	Summer Commuter	Courses	17
PENNSYLVANIA			
ALBRIGHT COLLEGE (2)	Summer Commuter	Courses	18
BRYN MAWR COLLEGE	Year Round Commuter/Residential	Courses	18
CARNEGIE MELLON UNIVERSITY (2)	Summer Residential	Both	19
CARNEGIE MELLON UNIVERSITY	Summer Commuter/Residential	Courses	18
COLLEGE GIFTED PROGRAMS AT GEORGE SCHOOL, NEWTON	Summer Residential	Courses	19
DREXEL UNIVERSITY, PHILADELPHIA COLLEGE OF PHARMACY & SCIENCE, TEMPLE UNIVERSITY, UNIV. OF PENNSYLVANIA, & VILLANOVA UNIV.	Summer Commuter/Residential	Courses	18
EDINBORO UNIVERSITY OF PENNSYLVANIA	Summer Residential	Courses	19
GANNON UNIVERSITY	Summer Commuter/Residential	Both	18
GEORGE WASHINGTON UNIVERSITY	Summer Commuter		
GWYNEDD-MERCY COLLEGE	Year Round Commuter	Courses	18
LA ROCHE COLLEGE	Academic Year Commuter	Courses	18
LA ROCHE COLLEGE	Summer Commuter	Both	18
LEBANON VALLEY COLLEGE	Summer Residential	Both	19
PENNSYLVANIA JUNIOR ACADEMY OF SCIENCE REGION 7 (IN COOPERATION WITH DUSQUESNE UNIVERSITY, CARNEGIE MELLON UNIVERSITY AND THE UNIVERSITY OF PITTSBURGH)	Academic Year Commuter	Courses	18
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE IN CONJUNCTION WITH PRIME	Summer Commuter/Residential	Courses	18
SAINT VINCENT COLLEGE	Summer Commuter/Residential	Both	18
SETON HILL COLLEGE	Summer Commuter/Residential	Research	18
SETON HILL COLLEGE	Year Round Commuter/Residential	Courses	18
SLIPPERY ROCK UNIVERSITY	Summer Commuter/Residential	Courses	19
TEMPLE UNIVERSITY	Summer Residential	Both	19
UNIVERSITY OF PENNSYLVANIA	Year Round Commuter	Courses	18
URSINUS COLLEGE	Summer Commuter/Residential	Courses	19
WASHINGTON & JEFFERSON COLLEGE	Summer Commuter/Residential	Courses	19
WESTINGHOUSE RESEARCH AND DEVELOPMENT CENTER	Academic Year Commuter	Courses	18
WIDENER UNIVERSITY	Academic Year Commuter	Both	18
WIDENER UNIVERSITY	Year Round Commuter	Courses	18
PUERTO RICO			
CATHOLIC UNIVERSITY OF PUERTO RICO	Summer Commuter/Residential	Research	19
HUMACAO UNIVERSITY COLLEGE	Summer Commuter/Residential	Research	19
RHODE ISLAND			
PROVIDENCE COLLEGE (2)	Summer Commuter	Courses	19
RHODE ISLAND COLLEGE	Summer Commuter	Courses	19
SOUTH CAROLINA			
CLEMSON UNIVERSITY	Summer Commuter/Residential	Both	19
ERSKINE COLLEGE	Summer Residential	Both	19
UNIVERSITY OF SOUTH CAROLINA, COASTAL CAROLINA COLLEGE	Summer Commuter	Courses	19
UNIVERSITY OF SOUTH CAROLINA, COLUMBIA	Academic Year Commuter	Courses	19
SOUTH DAKOTA			
SOUTH DAKOTA STATE UNIVERSITY	Summer Commuter/Residential	Both	19
TENNESSEE			
AUSTIN PEAY STATE UNIVERSITY	Year Round Commuter/Residential	Research	20
EAST TENNESSEE STATE UNIVERSITY	Academic Year Commuter	Courses	20
LINCOLN MEMORIAL UNIVERSITY	Summer Commuter/Residential	Courses	20
MEHARRY MEDICAL COLLEGE	Summer Commuter	Research	20
TENNESSEE STATE UNIVERSITY, MAIN CAMPUS	Summer Commuter/Residential	Both	20
TENNESSEE TECHNOLOGICAL UNIVERSITY	Summer Residential	Courses	20
UNIVERSITY OF TENNESSEE, KNOXVILLE	Summer Residential	Courses	20
UNIVERSITY OF TENNESSEE, MARTIN	Summer Commuter/Residential	Courses	20
UNIVERSITY OF TENNESSEE, MEMPHIS	Summer Commuter/Residential	Courses	20
UNIVERSITY OF TENNESSEE, MEMPHIS	Summer Commuter	Research	20
TEXAS			
HOWARD PAYNE UNIVERSITY	Year Round Commuter	Courses	20
LAMAR UNIVERSITY	Year Round Commuter	Courses	20
LAREDO STATE UNIVERSITY	Summer Commuter	Courses	20
LeTOURNEAU COLLEGE	Summer Commuter/Residential	Both	21
SOUTHERN METHODIST UNIVERSITY (2)	Summer Commuter/Residential	Courses	21
TARLETON STATE UNIVERSITY	Summer Commuter/Residential	Both	21
TEXAS A&I UNIVERSITY	Year Round Commuter	Courses	20
TEXAS A&I UNIVERSITY	Summer Commuter/Residential	Both	21

STATE/INSTITUTION	TYPE OF PROGRAM	RESEARCH OR COURSES	PAGE
TEXAS A&I UNIVERSITY	Year Round Commuter	Both	20
TEXAS A&M UNIVERSITY AT GALVESTON	Academic Year Commuter	Courses	20
TEXAS CHRISTIAN UNIVERSITY	Year Round Commuter	Courses	20
TEXAS TECH UNIVERSITY	Summer Commuter	Both	20
UNIVERSITY OF HOUSTON, CLEAR LAKE	Summer Commuter	Both	20
UNIVERSITY OF TEXAS AT AUSTIN	Academic Year Commuter	Courses	20
UNIVERSITY OF TEXAS AT DALLAS	Summer Commuter/Residential	Research	21
UNIVERSITY OF TEXAS AT SAN ANTONIO	Summer Commuter/Residential	Both	21
UNIVERSITY OF TEXAS MEDICAL BRANCH, GALVESTON	Summer Commuter	Research	20
UTAH			
BRIGHAM YOUNG UNIVERSITY	Summer Commuter/Residential	Courses	21
UTAH STATE UNIVERSITY (2)	Academic Year Commuter	Courses	21
WEBER STATE COLLEGE	Academic Year Commuter	Courses	21
WESTMINSTER COLLEGE OF SALT LAKE CITY	Year Round Commuter/Residential	Courses	21
VERMONT			
CASTLETON STATE COLLEGE	Academic Year Commuter	Courses	21
UNIVERSITY OF VERMONT	Summer Residential	Research	21
VIRGINIA			
CHRISTOPHER NEWPORT COLLEGE	Year Round Commuter	Courses	21
COLLEGE OF WILLIAM AND MARY	Summer Commuter	Research	21
GEORGE WASHINGTON UNIVERSITY	Summer Commuter		
JAMES MADISON UNIVERSITY	Year Round Commuter	Courses	21
LYNCHBURG COLLEGE	Summer Residential	Courses	22
OLD DOMINION UNIVERSITY	Year Round Commuter	Courses	21
VIRGINIA COMMONWEALTH UNIVERSITY	Summer Commuter	Research	21
VIRGINIA TECH	Summer Residential	Courses	22
VIRGINIA TECH	Summer Residential	Both	22
WASHINGTON			
GONZAGA UNIVERSITY	Academic Year Commuter	Courses	22
PACIFIC LUTHERAN UNIVERSITY	Summer Residential	Both	22
WEST VIRGINIA			
CONCORD COLLEGE	Summer Residential	Courses	22
WEST VIRGINIA SCHOOL OF OSTEOPATHIC MEDICINE	Academic Year Commuter	Both	22
WEST VIRGINIA WESLEYAN COLLEGE	Summer Residential	Courses	22
WISCONSIN			
ASSOCIATION FOR HIGH-POTENTIAL CHILDREN, INC., AND THE UNIVERSITY OF WISCONSIN, EAU CLAIRE	Academic Year Commuter	Courses	22
BELOIT COLLEGE	Academic Year Commuter	Courses	22
MARQUETTE UNIVERSITY	Academic Year Commuter/Residential	Courses	22
MARQUETTE UNIVERSITY (2)	Academic Year Commuter	Courses	22
RIPON COLLEGE	Summer Commuter	Courses	22
UNIVERSITY OF WISCONSIN, EAU CLAIRE	Summer Commuter	Courses	22
UNIVERSITY OF WISCONSIN, EAU CLAIRE	Summer Commuter/Residential	Courses	22
UNIVERSITY OF WISCONSIN, MADISON	Summer Residential	Courses	23
UNIVERSITY OF WISCONSIN, STEVENS POINT	Academic Year Commuter/Residential	Courses	22
UNIVERSITY OF WISCONSIN, STEVENS POINT	Summer Commuter	Courses	22
UNIVERSITY OF WISCONSIN, SUPERIOR (2)	Summer Commuter/Residential	Courses	22

ALABAMA

COMMUTER

ALABAMA STATE UNIVERSITY. MINORITY HIGH SCHOOL STUDENT RESEARCH APPRENTICE PROGRAM. RESEARCH: n/a. ENROLLMENT: 8. GRADE(S): 11/12. QUALIFIERS: outstanding grades; interest in health research career; aptitude for and demonstrated interest in biomedical sciences; strong recommendations by science teachers; minority students. DURATION/DATES: 8 weeks (June-August). EST. COST: none. SCHOLARSHIPS: students are paid minimum wages for the duration of the program. APPLICATION DEADLINE: April. CONTACT: Dr. Shiva P. Singh, Biomedical Research and Training Program, Alabama State University, Montgomery, AL 36195-0301 (205/293-4301).

AUBURN UNIVERSITY AT MONTGOMERY. HIGH SCHOOL EARLY ADMISSIONS PROGRAM. COURSES: biology; mathematics; chemistry; physics; scientific computing. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: GPA; counselor recommendation. DURATION/DATES: academic year; 10-week quarters including summer. EST. COST: $300. SCHOLARSHIPS: none. APPLICATION DEADLINE: prior to beginning of each quarter. CONTACT: Lee Davis, Admissions Office, Auburn University at Montgomery, Montgomery, AL 36193 (205/271-9621).

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. See listing in Washington, D.C.

***UNIVERSITY OF ALABAMA AT BIRMINGHAM. MINORITY HIGH SCHOOL RESEARCH APPRENTICE PROGRAM.** RESEARCH: biomedical science. ENROLLMENT: 18. GRADE(S): 12. QUALIFIERS: interest in biomedical research as career; aptitude for and demonstrated interest in science and math; language skills; outstanding high school grades; must be minority student; must be able to commute daily to UAB campus. DURATION/DATES: 10 weeks (June-August). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/1. CONTACT: Kenneth M. Pruett, Ph.D., Office of Research and Grants Administration, The University of Alabama at Birmingham, Birmingham, AL 35294 (205/934-4346).

COMMUTER/RESIDENTIAL

BIRMINGHAM-SOUTHERN COLLEGE. SUMMER SCHOLARS PROGRAM. COURSES: pre-calculus; calculus; biology; chemistry; physics. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: rising senior; application; grades. DURATION/DATES: 8 weeks (6/15-8/10). EST. COST: $75 (commuter); $700 (resident). SCHOLARSHIPS: full tuition for all. APPLICATION DEADLINE: 4/30. CONTACT: Mr. Robert Dortch, Birmingham-Southern College, Birmingham, AL 35254 (205/226-4600).

UNIVERSITY OF ALABAMA. CAPSTONE SUMMER HONORS PROGRAM. COURSES: mathematics; physics; chemistry. ENROLLMENT: 100. GRADE(S): 11. QUALIFIERS: PSAT; H.S. records. DURATION/DATES: 5 weeks (6/2-7/7; 7/9- 8/13). EST. COST: $800 (on-campus resident); $400 (non-resident). SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/15. CONTACT: David J. Heggem, Campus Programs, The University of Alabama, P.O. Box 6206, Tuscaloosa, AL 35487 (205/348-4999).

RESIDENTIAL

STILLMAN COLLEGE. DEVELOPMENT OF MATHEMATICS/SCIENCE COMPETENCIES OF MINORITY HIGH SCHOOL STUDENTS. RESEARCH/COURSES: mathematics; computer; biology; chemistry; physics; communications; problem solving. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: GPA; attitude; willingness to work hard; desire to succeed. DURATION/DATES: 6 weeks (6/15-7/24; 6/22-7/31). EST. COST: very few. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/15. CONTACT: Dr. Jarnail Singh, Department of Biology, Stillman College, Tuscaloosa, AL 35405 (205/349-4241, ext. 605).

ARIZONA

COMMUTER/RESIDENTIAL

ARIZONA STATE UNIVERSITY. CENTER FOR ACADEMIC PRECOCITY (CAP). COURSES: mathematics; psychology; calculus; laboratory science; microcomputers; principles of economic analysis; archaeology; astronomy; philosophical investigations; tv production. ENROLLMENT: open. GRADE(S): 7-12. QUALIFIERS: varies from course to course; minimum SAT-Math of 400+ and/or SAT-Verbal of 330+. DURATION/DATES: 5 weeks (6/27-8/1). EST. COST: $265 (commuter); $1650 (residential). SCHOLARSHIPS: yes (limited). APPLICATION DEADLINE: 4/20. CONTACT: Eleanor Flake, Center for Academic Precocity, College of Education, Arizona State University, Tempe, AZ 85287 (602/965-4757).

UNIVERSITY OF ARIZONA. PRECOLLEGE PROGRAM FOR GIFTED AND TALENTED STUDENTS. COURSES: astronomy; biology; chemistry; mathematics; geology; computer science; engineering; botany. ENROLLMENT: 150. GRADE(S): 12. QUALIFIERS: 3.25 GPA; two letters of recommendation. DURATION/DATES: 5 weeks (6/8-7/10). EST. COST: $675. SCHOLARSHIPS: yes, but limited. APPLICATION DEADLINE: 5/1. CONTACT: Jeff Cohen, Precollege Program for Gifted and Talented Students, College of Education, University of Arizona, Tucson, AZ 85721 (602/621-7865; 602/621-1350).

ARKANSAS

COMMUTER

***UNIVERSITY OF ARKANSAS AT LITTLE ROCK. SUMMER SCIENCE INSTITUTE.** COURSES: chemistry; biology; field science; physics; mathematics. ENROLLMENT: 80. GRADE(S): 10-12. QUALIFIERS: unknown. DURATION/DATES: 7/27-8/7. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Richard Hanson, and Fred Watson, Department of Chemistry, University of Arkansas at Little Rock, 2801 South University, Little Rock, AR 72204 (501/569- 3152).

***UNIVERSITY OF ARKANSAS, FAYETTEVILLE. SUMMER ENRICHMENT PROGRAM: CHEMISTRY IN YOUR WORLD.** COURSES: chemistry. ENROLLMENT: 12-14. GRADE(S): 7-12. QUALIFIERS: desire. DURATION/DATES: 2 weeks. EST. COST: $20. SCHOLARSHIPS: yes. APPLICATION DEADLINE: unknown. CONTACT: Prof. Collis R. Geren, Dept. of Chemistry and Biochemistry, University of Arkansas, Fayetteville, Fayetteville, AR 72701 (501/575-4601).

COMMUTER/RESIDENTIAL

***UNIVERSITY OF ARKANSAS, FAYETTEVILLE. SUMMER MINORITY APPRENTICE PROGRAM.** RESEARCH: microbiology; biochemistry; chemistry; zoology; psychology. ENROLLMENT: 6. GRADE(S): 11/12. QUALIFIERS: grades; courses taken; letters; career plans; ACT scores. DURATION/DATES: 6/15-8/15. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/30. CONTACT: Prof. Collis R. Geren, Dept. of Chemistry and Biochemistry, University of Arkansas, Fayetteville, Fayetteville, AR 72701 (501/575-4601).

CALIFORNIA

COMMUTER

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS. CUE (CONCURRENT UNIVERSITY ENROLLMENT). COURSES: biology; chemistry; computer science; earth science; mathematics; physics. ENROLLMENT: open. GRADE(S): 11/12. QUALIFIERS: anticipatied college eligibility; principal's approval. DURATION/DATES: academic year. EST. COST: $180/term. SCHOLARSHIPS: none. APPLICATION DEADLINE: two weeks before start of term. CONTACT: Anita Gash, Director of Admissions, California State University, Dominguez Hills, Carson, CA 90747 (213/516-3600).

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS. STEP (SCIENCE AND TECHNOLOGY ENRICHMENT PROGRAM). COURSES: biology; chemistry, computer science; mathematics; physics. ENROLLMENT: 240. GRADE(S): 7/8/9. QUALIFIERS: teacher recommendation; motivation. DURATION/DATES: 2 2-week sessions (6/30-7/31). EST. COST: $80/session. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: until start of classes. CONTACT: Eunice Krinsky, Department of Mathematics, California State University, Dominguez Hills, Carson, CA 90747 (213/516-3378).

CALIFORNIA STATE UNIVERSITY, FULLERTON. PROJECT ACCESS. COURSES: chemistry; physics; mathematics; biology; computer science. ENROLLMENT: 50. GRADE(S): 10/11. QUALIFIERS: recommendation by school district. DURATION/DATES: 2 weeks (6/23-7/3). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: A. James Diefenderfer, Dean, School of Natural Science and Mathematics, California State University, Fullerton, Fullerton, CA 92634 (714/773-2638).

CALIFORNIA STATE UNIVERSITY, FULLERTON. SATURDAY SCIENCE SERIES. COURSES: chemistry; biology; physics; mathematics; science education. ENROLLMENT: 150. GRADE(S): 7/8. QUALIFIERS: recommendation of school. DURATION/DATES: 1 Saturday/month for 4 months (January-April). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: A. James Diefenderfer, Dean, California State University, Fullerton, School of Natural Science and Mathematics, Fullerton, CA 92634 (714/773-2638).

CALIFORNIA STATE UNIVERSITY, LOS ANGELES. ACCELERATED COLLEGE ENROLLMENT (ACE). RESEARCH/COURSES: chemistry; physics; geology; biology; microbiology; mathematics; computer science. ENROLLMENT: 350. GRADE(S): 11/12. QUALIFIERS: academic achievement; counselor recommendation. DURATION/DATES: academic year and summer (mid-June to end of August). EST. COST: $40. SCHOLARSHIPS: none. APPLICATION DEADLINE: rolling admissions. CONTACT: George Bachmann, California State University, 5151 State University Dr., Los Angeles, CA 90032 (213/224-2521).

CALIFORNIA STATE UNIVERSITY, LOS ANGELES. PRE-ACCELERATED COLLEGE ENROLLMENT (PACE). RESEARCH/COURSES: chemistry; physics; geology; biology; microbiology; mathematics; computer science. ENROLLMENT: 100. GRADE(S): 9/10. QUALIFIERS: gifted status. DURATION/DATES: summer (mid-June to end of August). EST. COST: $40. SCHOLARSHIPS: none. APPLICATION DEADLINE: rolling admissions. CONTACT: George Bachmann, California State University, 5151 State University Dr., Los Angeles, CA 90032 (213/224-2521).

ROCKWELL INTERNATIONAL SCIENCE CENTER. YOUTH MOTIVATION PROGRAM. RESEARCH: physical and information sciences. ENROLLMENT: 15-20. GRADE(S): 12. QUALIFIERS: science orientation; GPA; recommendation from H.S. science faculty; interview; must be local resident and attend local H.S.. DURATION/DATES: 28 weeks (November-June). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 10/15. CONTACT: Sylvia Savage, Youth Motivation Program Coordinator, Rockwell International Science Center, 1049 Camino Dos Rios, Thousand Oaks, CA 91360 (805/373-4126).

UNIVERSITY OF CALIFORNIA, DAVIS. SUMMERTIME CAMPUS/JUPITER'87. COURSES: physics; chemistry labs adapted for young people; mathematics (critical thinking skills); geology; ecology; botany; zoology. ENROLLMENT: 210 (70+/session). GRADE(S): 4-8. QUALIFIERS: reasonable performance at grade level indicated. DURATION/DATES: 3 2-week sessions (7/7-8/15 & 7/6-8/14). EST. COST: $180/2-week session. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1 & 7/1. CONTACT: Caroline B. Pratt, University Extension, University of California, Davis, Davis, CA 95616 (916/752-8253).

*Planned, but not definite

UNIVERSITY OF CALIFORNIA, IRVINE. UNIVERSITY PROGRAM FOR HIGH SCHOOL SCHOLARS (UPHSS). COURSES: any regularly scheduled course for which the student has the necessary pre-requisites. ENROLLMENT: 50-75. GRADE(S): 11/12. QUALIFIERS: varies; highly competitive; geared for accelerated H.S. students. DURATION/DATES: academic year. EST. COST: $500/quarter. SCHOLARSHIPS: not available. APPLICATION DEADLINE: 5/1 (fall quarter). CONTACT: Susan J. Ward, Office of Admissions, University of California, Irvine, Irvine, CA 92717 (714/856-4543).

UNIVERSITY OF CALIFORNIA, SANTA BARBARA. ACCELERATED STUDY ACCESS PROGRAM (ASAP). COURSES: all subjects. ENROLLMENT: 25. GRADE(S): unrestricted, but usually 11/12. QUALIFIERS: test scores; transcripts; recommendations; talent. DURATION/DATES: academic year. EST. COST: unknown. SCHOLARSHIPS: few. APPLICATION DEADLINE: variable. CONTACT: Joyce Carasa, University of California, Santa Barbara, Santa Barbara, CA 93106 (805/961-3949).

UNIVERSITY OF CALIFORNIA, SANTA BARBARA. YOUNG SCHOLARS PROGRAM. COURSES: art; biology; literature; mathematics; music theory and composition. ENROLLMENT: 5-25. GRADE(S): 7-12. QUALIFIERS: test scores; transcripts; recommendations; ability. DURATION/DATES: 10 week quarters of academic year. EST. COST: $50/quarter, plus books. SCHOLARSHIPS: yes. APPLICATION DEADLINE: variable (preceding each academic quarter). CONTACT: Max Weiss, Provost, College of Creative Studies-University of California, Santa Barbara, Santa Barbara, CA 93106 (805/961-3759).

UNIVERSITY OF SOUTHERN CALIFORNIA. STUDENT TUTORIAL AND RESEARCH (STAR). RESEARCH: biology. ENROLLMENT: 15. GRADE(S): graduating seniors. QUALIFIERS: interest. DURATION/DATES: 20 weeks; 11/18-end of school year; summer. EST. COST: none. SCHOLARSHIPS: yes, for summer. APPLICATION DEADLINE: none. CONTACT: Dr. Kelvin J. A. Davies, 1985 Zonal Avenue, Los Angeles, CA 90033 (213/224-7542).

UNIVERSITY OF SOUTHERN CALIFORNIA. SUMMER HONORS PROGRAM. COURSES: physiology; other. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: nomination by counselors; PSAT; GPA; student essay; recommendations. DURATION/DATES: 3 weeks (6/22-7/10). EST. COST: books and parking only. SCHOLARSHIPS: included in cost. APPLICATION DEADLINE: 2/13. CONTACT: Richard Fliegel, Jefferson 200, University of Southern California, University Park, Los Angeles, CA 90089-1295 (213/743-6900).

COMMUTER/RESIDENTIAL

CALIFORNIA INSTITUTE OF TECHNOLOGY. THE SECONDARY SCHOOL SCIENCE PROJECT. RESEARCH/COURSES: mathematics; physics; trigonometry and calculus; chemistry; molecular biology. ENROLLMENT: unknown. GRADE(S): 7-12. QUALIFIERS: interest; mathematic's background. DURATION/DATES: 26 weeks (academic year): 1st week in October-3rd Saturday in May; 7 weeks (summer): 6/22- 8/8. EST. COST: books only for commuters; $550 board. SCHOLARSHIPS: none. APPLICATION DEADLINE: first come, first served. CONTACT: Lee F. Browne, 10- 63 Caltech, Pasadena, CA 91125 (818/356-6207).

PEGASUS PROGRAMS, INC. AND THE UNIVERSITY OF CALIFORNIA, IRVINE. PEGASUS PROJECT FOR THE ACADEMICALLY TALENTED (PPAT) AND PROJECT EXCEL. COURSES: chemistry; anatomy; geometry; physics; Latin; fast-paced precalculus math; expository writing; study skills. ENROLLMENT: 350. GRADE(S): 6-11. QUALIFIERS: students in 95%+ on achievement test. For PPAT: SAT verbal 390 (SCAT verbal 467) and/or SAT math 430 (SCAT math 478) for grades 6-8. For grades 9-11: +20 SAT (+2 SCAT) points per grade level. DURATION/DATES: 6/29- 7/31. EST. COST: $585 (PPAT); $365 (Project EXCEL). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Lorraine Bostick, P.O. Box 4767, Irvine, CA 92716-4767 (714/856-5358).

PEGASUS PROGRAMS, INC. AND THE UNIVERSITY OF CALIFORNIA, IRVINE. PEGASUS SUMMER SCHOLAR PROGRAM. COURSES: chemistry; mathmatics; computer sciences; physics; engineering; biology. ENROLLMENT: 20-30. GRADE(S): 10/11/12. QUALIFIERS: 3.5 GPA. DURATION/DATES: 6/22-7/31. EST. COST: $400/4-unit course. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Lorraine Bostick, Pegasus Programs, Inc., University of California, Irvine, Irvine, CA 92716-4767 (714/856-5358).

UNIVERSITY OF CALIFORNIA, DAVIS. AN INTERDISCIPLINARY PROGRAM IN BIOLOGY WITH A FOCUS ON BIOLOGICAL SCIENCES, RESEARCH AND APPLICATIONS. RESEARCH/COURSES: biological sciences (animal, plant, applied). ENROLLMENT: 30. GRADE(S): 10/11/12. QUALIFIERS: academic performance; science emphasis; 2 years mathematics, recommendation by school; citizenship. DURATION/DATES: 5 weeks (6/28-8/1). EST. COST: $1000. SCHOLARSHIPS: none. APPLICATION DEADLINE: 3/1. CONTACT: Dr. Victor A. Perkes, Department of Science Education, University of California, Davis, Davis, CA 95616 (916/752-2622; 916/752-0757).

UNIVERSITY OF SOUTHERN CALIFORNIA. SUMMER ENGINEERING RESEARCH PROGRAM. RESEARCH/COURSES: engineering (aerospace, biomedical, chemical, civil, electrical, industrial and systems, materials science, mechanical petroleum); computer science. ENROLLMENT: 30. GRADE(S): 12 and selected juniors. QUALIFIERS: superior in science and math skills; H.S. recommendations; GPA; college board scores. DURATION/DATES: 6/21-8/7. EST. COST: $1850 (residential); $400 (commuter). SCHOLARSHIPS: limited. APPLICATION DEADLINE: 4/1. CONTACT: Dean Clarke T. Howatt, School of Engineering, University of Southern California, Los Angeles, CA 90089-1455 (213/743-2471).

UNIVERSITY OF THE PACIFIC. SUMMER HONORS PROGRAM; RECOMBINANT DNA: AN INTRODUCTION TO THE THEORY AND LAB TECHNIQUES OF GENETIC RECOMBINATION AND GENETIC ENGINEERING. RESEARCH/COURSES: chemistry; biochemistry; artificial intelligence. ENROLLMENT: 45. GRADE(S): 12. QUALIFIERS: teacher recommendation; GPA; PSAT. DURATION/DATES: 6/15-7/3. EST. COST: $500. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 4/15. CONTACT: Prof. Michael Minch, Chemistry Department, University of the Pacific, Stockton, CA 95211 (209/946-2442 or 946-2271).

RESIDENTIAL

***HARVEY MUDD COLLEGE. CADCAMP.** RESEARCH/COURSES: computer-aided design and graphics. ENROLLMENT: 30. GRADE(S): 12. QUALIFIERS: unknown. DURATION/DATES: 2 weeks/session. EST. COST: $650. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Gary Evans, CADCamp Director, Harvey Mudd College, Claremont, CA 91711 (714/621-8000, ext. 2400).

NATIONAL CENTER FOR EXCELLENCE IN EDUCATION. MATHEMATICS, SCIENCE AND COMPUTER SCIENCE SUMMER INSTITUTE. RESEARCH/COURSES: advanced mathematics; physics; computer science. ENROLLMENT: 125. GRADE(S): 9-12. QUALIFIERS: SAT or PSAT; school grades; recommendation by math or science teacher. DURATION/DATES: 8/2-29. EST. COST: $2,000. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Edward D. Lozansky, 3001 Veazey Terrace, NW, Washington, DC 20008 (202/364-0200). Program will be held on the Chapman College campus in Orange, California

OCCIDENTAL COLLEGE. OCEANOLOGY AT OCCIDENTAL COLLEGE. RESEARCH/COURSES: biology. ENROLLMENT: 15-30. GRADE(S): 12. QUALIFIERS: student should have taken some biology; chemistry; mathematics. DURATION/DATES: 5 weeks (undecided). EST. COST: $1128 tuition; $850 room and board; $12 accident policy. SCHOLARSHIPS: none. APPLICATION DEADLINE: May. CONTACT: Dr. Gary G. Martin, Department of Biology, Occidental College, Los Angeles, CA 90041 (213/259-2890).

THE THACHER SCHOOL. SUMMER SCIENCE PROGRAM. RESEARCH/COURSES: physics; mathematics; astronomy; astrophotography; computer programming; creative problem-solving; includes research project in observational astronomy. ENROLLMENT: 36. GRADE(S): 12. QUALIFIERS: 3 years of mathematics (calculus preferred, but not required); 1 year advanced science (physics preferred, but not required); test scores; transcript; recommendations. DURATION/DATES: 6/22-8/1. EST. COST: $1150. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/3. CONTACT: Roger D. Klausler, Administrative Director, The Thacher School, Ojai, CA 93023 (805/646-8231).

UNIVERSITY OF CALIFORNIA, DAVIS. COASTAL ECOLOGY AT THE GOLDEN GATE HEADLANDS. COURSES: ecology (marsh, coastal scrub, grasslands); geology; ornithology; marine mammal biology. ENROLLMENT: 30. GRADE(S): 5-10. QUALIFIERS: good physical condition. DURATION/DATES: 5 days (6/21-26). EST. COST: $300. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/15. CONTACT: Caroline B. Pratt, University Extension, University of California, Davis, Davis, CA 95616 (916/752-8253).

UNIVERSITY OF CALIFORNIA, SANTA BARBARA. HIGH SCHOOL JUNIORS PROGRAM (HSJ). COURSES: all courses. ENROLLMENT: 300. GRADE(S): 12. QUALIFIERS: 3.0 GPA; transcript; recommendations. DURATION/DATES: 6 weeks (6/21-7/31). EST. COST: $1100. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/17. CONTACT: Dr. Eugene C. Johnsen, Summer Sessions Office, University of California, Santa Barbara, CA 93106 (805/961-2069).

UNIVERSITY OF CALIFORNIA, SANTA BARBARA. YOUNG SCHOLARS SUMMER PROGRAM. COURSES: art; biology; literature; mathematics, music; physics. ENROLLMENT: 60-68. GRADE(S): 9-12. QUALIFIERS: placement test; transcript; recommendations. DURATION/DATES: 6 weeks (6/21-7/31). EST. COST: $1100. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/17. CONTACT: Dr. Eugene C. Johnsen, Summer Sessions Office, University of California, Santa Barbara, CA 93106 (805/961-2069).

COLORADO

COMMUTER/RESIDENTIAL

COLORADO STATE UNIVERSITY. YOUTH ENRICHMENT PROGRAM. COURSES: small group analysis and discussion of engineering applications; astronomy; exploring math. ENROLLMENT: 60-130. GRADE(S): 6-12. QUALIFIERS: 3 letters of recommendation; personal statement; standardized test score results. DURATION/DATES: two weeks (7/19-8/1). EST. COST: $200 room and board; $250 tuition. SCHOLARSHIPS: limited (partial tuition). APPLICATION DEADLINE: 5/1. CONTACT: Dr. William Timpson, Education Building, Colorado State University, Fort Collins, CO 80523 (303/491-6816).

***UNIVERSITY OF SOUTHERN COLORADO. MINORITY HIGH SCHOOL STUDENT RESEARCH APPRENTICE PROGRAM.** RESEARCH: biology; chemistry; psychology. ENROLLMENT: 8. GRADE(S): 9-12. QUALIFIERS: science and math background; grades; extracurricular science involvement; written expression of interest in science and research. DURATION/DATES: academic year and summer. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/15. CONTACT: Paul Schnur, Ph.D., Dept. of Psychology, University of Southern Colorado, Pueblo, CO 81001 (303/549-2104).

RESIDENTIAL

***AMERICAN INDIAN SCIENCE AND ENGINEERING SOCIETY. AMERICAN INDIAN SCIENCE AND ENGINEERING INSTITUTE.** COURSES: survey of mathematics; science; engineering topics. ENROLLMENT: 30. GRADE(S): 8-10. QUALIFIERS: American Indian students in top 25% of class; stated interest in math or science career. DURATION/DATES: 2 weeks; August. EST. COST: based on ability to pay; not to exceed $500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/30. CONTACT: Norbert Hill, AISES, 1310 College Avenue, #1220, Boulder, CO 80302 (303/492-8658).

COLORADO STATE UNIVERSITY. SCIENCE MOTIVATION PROGRAM. RESEARCH: physiology; microbiology; pathology; environmental health; neu-

*Planned, but not definite

roscience; engineering; ecology. ENROLLMENT: 15-18. GRADE(S): 11/12. QUALIFIERS: teacher recommendation; academic record, potential to excell in science. DURATION/DATES: 4 weeks (6/14-7/10). EST. COST: travel expenses (room and board provided). SCHOLARSHIPS: $520 stipend. APPLICATION DEADLINE: 3/15. CONTACT: C.W. Miller, Department of Physiology, Colorado State University, Fort Collins, CO 80523 (303/491-6187).

CROW CANYON ARCHAEOLOGICAL CENTER. HIGH SCHOOL FIELD SCHOOL. RESEARCH/COURSES: archaeology; botany; zoology. ENROLLMENT: 40. GRADE(S): 9-12. QUALIFIERS: GPA; scholarships; recommendations; interest in archaeology and out-of-doors. DURATION/DATES: 4 weeks (6/21-7/18). EST. COST: $1300. SCHOLARSHIPS: yes, upon application. APPLICATION DEADLINE: unknown. CONTACT: Ian Thompson, Executive Director, 23390 County Road K, Cortez, CO 81321 (303/565-8975).

UNITED STATE AIR FORCE ACADEMY. SUMMER SCIENTIFIC SEMINAR. COURSES: aeronautics; astronautics; materials; chemistry; biology; physics; computer science; electronics. ENROLLMENT: 500. GRADE(S): 12. QUALIFIERS: PSAT; grades; activities; recommendations. DURATION/DATES: 6/7-14; 6/14-21. EST. COST: $75 and transportation. SCHOLARSHIPS: yes (minorities). APPLICATION DEADLINE: 2/2. CONTACT: Capt. Dan Moore, USAFA/RRMX, Colorado Springs, CO 80840 (303/472-2236).

CONNECTICUT

COMMUTER

EASTERN CONNECTICUT STATE UNIVERSITY. WINDHAM HIGH SCHOOL INTENSIVE PROGRAM. COURSES: mathematics; computer science; physics; chemistry; biology. ENROLLMENT: 15. GRADE(S): 12. QUALIFIERS: counselor/teacher recommendations. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 8/1 (fall); 1/15 (spring). CONTACT: Dr. Bruce Bradford, Burr Hall, Eastern Connecticut State University, Willimantic, CT 06226 (203/456-2231).

PROJECT OCEANOLOGY. FALL/SPRING AFTER SCHOOL PROGRAM/ SUMMER PROGRAM. RESEARCH: marine biology. ENROLLMENT: after school 30; summer 80. GRADE(S): 7-12. QUALIFIERS: recommendation of school system; must attend Connecticut school districts which are members of Project Oceanology. DURATION/DATES: 10 weeks (after school); 3 3-week sessions (summer). EST. COST: transportation. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: through school science year. CONTACT: Dr. Howard M. Weiss, Project Oceanology, Avery Point, Groton, CT 06340 (445-9007).

SOUTHERN CONNECTICUT STATE UNIVERSITY. PHYSICS, CHEMISTRY, BIOLOGY, EARTH SCIENCES, MATHEMATICS AND OTHERS. COURSES: physics; chemistry; biology. ENROLLMENT: 25/term. GRADE(S): 10/11/12. QUALIFIERS: academic counselors in H.S. select students. DURATION/DATES: academic year. EST. COST: $10/term. SCHOLARSHIPS: none. APPLICATION DEADLINE: 9/1. CONTACT: Michael Perillo, Associate Dean, School of Graduate Studies/Continuing Education, Southern Connecticut State University, 501 Crescent Street, New Haven, CT 06515 (203/397-4325).

WESTERN CONNECTICUT STATE UNIVERSITY. "TRANSITION TO UNIVERSITY" PROGRAM. COURSES: computer science; chemistry; physics; mathematics; biology. ENROLLMENT: 10-20. GRADE(S): 11/12. QUALIFIERS: B average; combined SAT of 1,000; top 20% RIC. DURATION/DATES: semester; 9/5-12/15; 1/20-5/15; 7/5-8/3. EST. COST: $71/credit hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4 weeks before start of semester. CONTACT: Edwina Chance, Assistant Director, Western Connecticut State University, 181 White Street, Danbury, CT 06810 (203/797-4314).

COMMUTER/RESIDENTIAL

SAINT JOSEPH COLLEGE. BUDDY SYSTEM RESEARCH PROGRAM. RESEARCH: chemistry; physics; biology; computer science. ENROLLMENT: 4. GRADE(S): 10/11/12. QUALIFIERS: interest only. DURATION/DATES: academic year. EST. COST: free. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Peter G. Markow, Department of Chemistry, St. Joseph College, West Hartford, CT 06117 (203/232-4571).

SAINT JOSEPH COLLEGE. CHALLENGE PROGRAM FOR HIGH SCHOOL STUDENTS. COURSES: biology; chemistry; computer science; mathematics; physics. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: H.S. academic record; recommendation; letter of interest; PSAT/SAT scores. DURATION/DATES: academic year. EST. COST: $20 plus books and lab fees. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/31 (fall); 12/18 (spring). CONTACT: Peter G. Markow, Department of Chemistry, St. Joseph College, West Hartford, CT 06117 (203/232-4571).

DELAWARE

RESIDENTIAL

UNIVERSITY OF DELAWARE. SUMMER COLLEGE. COURSES: curriculum changes from year to year. ENROLLMENT: 73. GRADE(S): 12. QUALIFIERS: PSAT; SAT; grades; 2 recommendations from teachers and/or guidance counselor; student's statement. DURATION/DATES: 6/29-7/31. EST. COST: $1,500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/24. CONTACT: Martha Collins, Special Sessions, 325 Hullihen Hall, University of Delaware, Newark, DE 19716 (302/451- 6560).

DISTRICT OF COLUMBIA

COMMUTER

AMERICAN UNIVERSITY. COLLEGE PROGRAM FOR HIGH SCHOOL STUDENTS. COURSES: biology; physics; chemistry; computer science. ENROLLMENT: unlimited. GRADE(S): 10/11/12. QUALIFIERS: high ability in sciences required; 3.5 GPA; 2 letters of recommendation from H.S.. DURATION/DATES: 8 weeks (6/25-8/21). EST. COST: $299/credit hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: University Programs Advisement Center, McKinley Building, 1st Floor, 4400 Massachusetts Avenue, NW, Washington, DC 20016 (202/885-2500).

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. RESEARCH/COURSES: chemistry; physics; engineering; mathematics; computer science. ENROLLMENT: 500. GRADE(S): 10/11/12. QUALIFIERS: U.S. citizen; courses taken; grades; standardized test scores; extracurricula activities; teacher recommendation; personal essay. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: none. SCHOLARSHIPS: $1100 stipend. APPLICATION DEADLINE: 2/6. CONTACT: Marylin Krupsaw, 515 22nd St., NW, Suite 550, Washington, DC 20052 (202/676-5478). See also listings in Virginia; Maryland; Alabama; New Jersey and Pennsylvania.

COMMUTER/RESIDENTIAL

GEORGE WASHINGTON UNIVERSITY. NON-DEGREE COURSES FOR SECONDARY SCHOOL STUDENTS. COURSES: biology; botany; zoology; chemistry; computer science; mathematics; physics; statistics; computer and information systems. ENROLLMENT: 50. GRADE(S): 11/12. QUALIFIERS: B average in college prep courses; PSAT scores of 50 verbal and 50 math, SAT scores of 500 verbal and 500 math, or ACT composite score of 24. DURATION/DATES: academic year and summer (summer/6 weeks). EST. COST: $330/ semester hour. SCHOLARSHIPS: students with clearly superior academic records and standardized test scores are eligible for full tuition scholarships. APPLICATION DEADLINE: 6/1 (summer); 8/1 (fall); 12/1 (spring). CONTACT: Michael J. O'Leary, The George Washington University, Office of Undergraduate Admissions, Washington, DC 20052 (202/994- 6040).

GEORGE WASHINGTON UNIVERSITY. SUMMER SCHOLAR PROGRAM. COURSES: biology; botany; zoology; chemistry; computer science; physics; astronomy; geology; mathematics; statistics; computer information systems; social sciences; humanities; others. ENROLLMENT: unlimited enrollment. GRADE(S): 11/12. QUALIFIERS: B average in college prep courses; PSAT and/ or SAT, 500-verbal, 500-math; other academic records and standardized test scores. DURATION/DATES: summer; 6/26- 8/8. EST. COST: $330/credit hour (fall and spring); $268/credit hour (summer). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1 (summer); 8/1 (fall); 12/1 (spring). CONTACT: Michael J. O'Leary, Office of Admissions, George Washington University, Washington, DC 20052 (202/994-6040).

RESIDENTIAL

GALLAUDET UNIVERSITY. YOUNG SCHOLARS PROGRAM. RESEARCH/ COURSES: physics (mechanics); solar physics; marine biology; forensic science. ENROLLMENT: 20-25. GRADE(S): 9-12. QUALIFIERS: limited to deaf students; GPA; class rank; standardized test scores; recommendation; student essay. DURATION/DATES: 4 weeks (6/29-7/24). EST. COST: $1000. SCHOLARSHIPS: yes, but limited. APPLICATION DEADLINE: 3/31. CONTACT: Dr. Richard W. Meisegeier, Honors Program, Gallaudet University, 800 Florida Avenue, NE, Washington, DC 20002 (202/651-5355).

***GEORGE WASHINGTON UNIVERSITY. SCIENCE, TECHNOLOGY AND RESEARCH STUDENTS (STARS).** RESEARCH/COURSES: computer science career guidance. ENROLLMENT: 28. GRADE(S): 8. QUALIFIERS: student interest in science; teacher recommendation. DURATION/DATES: 2 3-day sessions (spring and fall). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Marylin Krupsaw, George Washington University, 515 22nd St., NW, Suite 550, Washington, DC 20052 (202/676-5478).

HOWARD UNIVERSITY. SUMMER HEALTH CAREERS PROGRAM. COURSES: mathematics; chemistry; biology; physics; career seminars; field trips; non-science courses. ENROLLMENT: 50. GRADE(S): 12. QUALIFIERS: strong motivation; class rank; course background; SAT scores; letters of recommendation; admission to Howard University. DURATION/DATES: 6 weeks (6/ 22-8/1). EST. COST: $225- $275. SCHOLARSHIPS: not available. APPLICATION DEADLINE: 3/15. CONTACT: Dr. G.F. Aboko-Cole, P.O. Box 1124, Administration Building, Howard University, Washington, DC 20059 (202/636-7231).

FLORIDA

COMMUTER

BARRY UNIVERSITY. RESEARCH SUMMER APPRENTICESHIP FOR MINORITY HIGH SCHOOL STUDENTS. RESEARCH: experimental genetics; marine biology. ENROLLMENT: 4. GRADE(S): 10/11/12. QUALIFIERS: GPA; SAT scores; math and science background; recommendations. DURATION/DATES: 6/15-7/23. EST. COST: car fare only. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/15. CONTACT: Jeremy R. Montague, Ph.D., Barry University, 11300 N.E. 2 Avenue, Miami, FL 33161 (305/758-3392, ext. 258).

FLORIDA A&M UNIVERSITY. TALENTED YOUTH FOR THE PHYSICAL SCIENCES AND ENGINEERING. COURSES: chemistry; physics; trigonometry; computer education. ENROLLMENT: 30-40. GRADE(S): 8-11. QUALIFIERS: minimum grade of B in Algebra and in a science and math course last taken; recommendations by science and math teachers and guidance counselor; take college preparatory math and science courses the following year. DURATION/DATES: 2 sequential 3-week sessions (1st session: beings the third or last week of June). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: April. CONTACT: Dr. Mila E. Ignatz, Florida A&M University Developmental Research School, Box A-19, Florida A&M University, Tallahassee, FL 32307 (904/599-3151).

FLORIDA A&M UNIVERSITY. A PROGRAM OF EXCELLENCE IN MATHEMATICS, SCIENCE, AND COMPUTER EDUCATION. RESEARCH/

*Planned, but not definite

COURSES: biology; chemistry; physics; computer literacy. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: 2.5+ GPA; resident of Leon, Gadsden, Jefferson, or Wakulla County; must have completed 1 year of biology, chemistry or physics and intermediate algebra. DURATION/DATES: Saturday academy: spring (5/2,9,16,23,30); summer session (6/29-7/31). EST. COST: transportation and meals. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/3 (spring); 5/29 (summer). CONTACT: Dr. Lynette P. Padmore, Coordinator, Department of Biology, Florida A&M University, Tallahassee, FL 32307 (904/599-3825).

FLORIDA INSTITUTE OF TECHNOLOGY. PROJECT EARTH. RESEARCH/COURSES: ecology; statistics; environmental science. ENROLLMENT: 20. GRADE(S): 11. QUALIFIERS: talented in science; teacher recommendation. DURATION/DATES: 3 weeks (7/6-24). EST. COST: $500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/8. CONTACT: Robert F. Richmond, Director of Teacher Training, Science Education Department, Florida Institute of Technology, 150 West University Boulevard, Melbourne, FL 32901-6988 (305/768-8126).

MARTIN COUNTY HIGH SCHOOL. SUMMER SCIENCE INSTITUTE. RESEARCH/COURSES: organic chemistry; botany; ecology; space/engineering technology. ENROLLMENT: 60-100. GRADE(S): 10/11/12. QUALIFIERS: high interest; teacher recommendation. DURATION/DATES: 7/1-8/1. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Lonnie Poormon, Martin County High School, 2801 S. Kanner Hwy., Stuart, FL 33497 (305/287-0710).

***NOVA UNIVERSITY OCEANOGRAPHIC CENTER. SUMMER OCEANOGRAPHIC RESEARCH INSTITUTE.** RESEARCH: marine biology; ecology; chemistry; pollution research; beach processes. ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: H.S. background; grades; teacher recommendation; previous research projects. DURATION/DATES: 6 weeks (6/1- mid-July). EST. COST: unknown. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/1. CONTACT: Curtis Burney, Oceanographic Center, Nova University, 8000 N. Ocean Dr., Dania, FL 33004 (305/475-7487).

UNIVERSITY OF SOUTH FLORIDA. FRONTIERS OF MODERN SCIENCE. COURSES: chemistry; physics; computer science. ENROLLMENT: 60 (45-first year; 15-second year). GRADE(S): 10/11/12. QUALIFIERS: gifted; teacher recommendation. DURATION/DATES: six weeks (6/12-7/24). EST. COST: $70. SCHOLARSHIPS: fee waivers based on need and $300 scholarships for minorities. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Jefferson C. Davis, Jr., University of South Florida-SCA 241, Tampa, FL 33620 (813/974-4068).

UNIVERSITY OF SOUTH FLORIDA. HIGH SCHOOL MENTOR PROGRAM. RESEARCH: mathematics; biological and physical sciences; engineering; medicine; computer science. ENROLLMENT: 5-20. GRADE(S): 7-12. QUALIFIERS: teacher recommendation. DURATION/DATES: variable. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Dr. Richard L. Mansell, University of South Florida-LIF 169, Tampa, FL 33620 (813/974-4068). Additional Contact: Dr. R. Kent Nagle, University of South Florida-PHY 362, Tampa, FL 33620-5700, 813/974-4068

UNIVERSITY OF SOUTH FLORIDA. HILLSBOROUGH COUNTY BIOMEDICAL AND LIFE SCIENCE PROGRAM. COURSES: microbial biology; human cytogenetics. ENROLLMENT: 30 (15-first year; 15-second year). GRADE(S): 10/11/12. QUALIFIERS: responsibility of Hillsborough County Schools. DURATION/DATES: six weeks (6/12-7/24). EST. COST: $15. SCHOLARSHIPS: fee waivers. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Marvin R. Alvarez, University of South Florida-LIF 169, Tampa, FL 33620 (813/974-4068).

UNIVERSITY OF SOUTH FLORIDA. HILLSBOROUGH COUNTY MATHEMATICS AND ENGINEERING PROGRAM. COURSES: mathematics; computer science; engineering. ENROLLMENT: 60 (45-first year; 15-second year). GRADE(S): 10/11/12. QUALIFIERS: responsibility of Hillsborough County Schools. DURATION/DATES: six weeks (6/12-7/24). EST. COST: $15. SCHOLARSHIPS: fee waivers. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Joseph J. Liang, University of South Florida-PHY 342, Tampa, FL 33620 (813/974-4068).

UNIVERSITY OF SOUTH FLORIDA. HILLSBOROUGH COUNTY MATHEMATICS AND SCIENCE PROGRAM FOR GIFTED JUNIOR HIGH STUDENTS. COURSES: mathematics; computer science; physics. ENROLLMENT: 45. GRADE(S): 8/9/10. QUALIFIERS: responsibility of Hillsborough County Schools. DURATION/DATES: six weeks (6/11-7/23). EST. COST: $15. SCHOLARSHIPS: fee waivers. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Jon C. Snader, University of South Florida-PHY 342, Tampa, FL 33620 (813/974-4068).

UNIVERSITY OF SOUTH FLORIDA. PINELLAS COUNTY MATHEMATICS AND SCIENCE PROGRAM. COURSES: mathematics; computer science; physics. ENROLLMENT: 60 (45-first year; 15-second year). GRADE(S): 8/9/10. QUALIFIERS: gifted; teacher recommendation. DURATION/DATES: 6 weeks (6/12- 7/24). EST. COST: $70. SCHOLARSHIPS: fee waivers based on need and $300 scholarships for minorities. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Kenneth L. Pothoven, University of South Florida-PHY 342, Tampa, FL 33620 (813/974-4068).

COMMUTER/RESIDENTIAL

***STETSON UNIVERSITY. PRE-COLLEGE PROGRAM FOR THE ACADEMICALLY TALENTED.** COURSES: natural sciences; mathematics; computer science; humanities; social sciences. ENROLLMENT: 10-15. GRADE(S): 11/12. QUALIFIERS: gifted/talented; SAT 1000; TSWE 45; teacher and/or counselor recommendations. DURATION/DATES: 6/14-7/10; 7/12-8/7; 6/14-8/7. EST. COST: $875 (4 week program); $1650 (8 week program). SCHOLARSHIPS: yes. APPLICATION DEADLINE: unknown. CONTACT: Dr. Mitchell G. Reddish, Box 8354, Stetson University, Deland, FL 32720-3757 (904/734-4121, ext. 545 or 547).

RESIDENTIAL

FLORIDA STATE UNIVERSITY. FLORIDA STATE UNIVERSITY SUMMER SCIENCE AND MATHEMATICS CAMP. RESEARCH/COURSES: discrete mathematics; several computer courses at different levels; biology; biochemistry; physics; and independent research projects. ENROLLMENT: 50. GRADE(S): 12. QUALIFIERS: Florida residents; class rank; PSAT; SAT or equivalent scores; science and math background; teacher recommendation; student essay. DURATION/DATES: 6/14-7/24. EST. COST: $90 for books. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Patricia C. Hayward, 238 Conradi Building, Florida State University, Tallahassee, FL 32306 (904/644-6747).

***NEW COLLEGE OF THE UNIVERSITY OF SOUTH FLORIDA. SUMMER SEMINAR IN ENVIRONMENTAL SCIENCE, MATHEMATICS AND COMPUTERS.** RESEARCH/COURSES: biology; environmental science; cognitive science; mathematics. ENROLLMENT: 45/session. GRADE(S): 9/10. QUALIFIERS: GPA; academic achievements; recommendations; personal statement; Florida resident attending Florida school. DURATION/DATES: 2 2-week sessions. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: (before May) James Feeney, Summer Seminar, Office of the Provost, New College, 5700 N. Tamiami Trail, Sarasota, FL 34243 (813/355-7671, ext. 207). (after May) Lois Jones, Summer Seminar, Office of the Provost, New College, 5700 N. Tamiami Trail, Sarasota, FL 34243.

***STETSON UNIVERSITY. STETSON ACADEMIC TALENT PROGRAM.** COURSES: mathematics; computer science; biology; chemistry; physics; geology. ENROLLMENT: 30-40. GRADE(S): 8-11. QUALIFIERS: SAT math 500+; SAT verbal 430+; TSWE 35+ for verbal courses; teacher and/or counselor recommendations. DURATION/DATES: 6/28-7/18. EST. COST: $1000. SCHOLARSHIPS: yes. APPLICATION DEADLINE: unknown. CONTACT: Dr. Mitchell G. Reddish, Box 8354, Stetson University, Deland, FL 32720-3757 (904/734-4121, ext. 545 or 547).

UNIVERSITY OF FLORIDA. 29TH ANNUAL STUDENT SCIENCE TRAINING PROGRAM-A COMPONENT OF THE FLORIDA GOVERNOR'S SUMMER PROGRAM. RESEARCH/COURSES: focus is individual research participation with University of Florida faculty; multidisciplinary (science; engineering; medicine); course work available in statistics and computers. ENROLLMENT: 120. GRADE(S): 11. QUALIFIERS: nomination; forms; transcript; letters of recommendation; essay; standardized test scores. DURATION/DATES: 8 weeks (6/14-8/8). EST. COST: $1700 (essential expenses); $100 (activity fee). SCHOLARSHIPS: Florida students only; will assist out-of-state students in obtaining financial aid. APPLICATION DEADLINE: 3/1. CONTACT: Dr. Elizabeth F. Abbott, Director, and Ms. Wendy B. Namack, Deputy Director, Florida Foundation for Future Scientists, 111 Norman Hall, University of Florida, Gainesville, FL 32611 (904/392-2310).

GEORGIA

COMMUTER

GEORGIA INSTITUTE OF TECHNOLOGY. FRESHMAN ENGINEERING WORKSHOP (FEW). RESEARCH/COURSES: engineering subjects. ENROLLMENT: 35. GRADE(S): 9. QUALIFIERS: Black; Hispanic; American Indian. DURATION/DATES: 6/29-7/3. EST. COST: transportation only. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Director of Special Programs, College of Engineering, Dean's Office, Georgia Institute of Technology, Atlanta, GA 30332 (404/894-3354).

GEORGIA STATE UNIVERSITY. PROGRAM FOR EXCELLENCE. COURSES: all 100 and 200-level Arts and Sciences courses. ENROLLMENT: 25. GRADE(S): 12. QUALIFIERS: SAT total of 1200 (no lower than 550 in either area); 3.5 GPA; recommendation of H.S. counselor. DURATION/DATES: academic year. EST. COST: $150/course for in-state student. SCHOLARSHIPS: none. APPLICATION DEADLINE: 8/10 (fall). CONTACT: Mrs. Mary Archbald, Assistant Dean of Admissions, Office of Admissions, College of Arts and Sciences, Georgia State University, 102 Sparks Hall, 33 Gilmer St., Atlanta, GA 30303-3085 (404/658-4029).

GEORGIA STATE UNIVERSITY. SUMMER SCHOLAR PROGRAM. COURSES: all 100 and 200-level Arts and Sciences courses. ENROLLMENT: 25. GRADE(S): 12. QUALIFIERS: SAT total of 1000 (minimum of 450 in each area); 3.0+ GPA; recommendation of H.S. counselor. DURATION/DATES: 8 weeks (6/16-8/17). EST. COST: $173 (in-state). SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/15. CONTACT: Mrs. Mary Archbald, Assistant Dean of Admissions, Office of Admissions, College of Arts and Sciences, Georgia State University, 102 Sparks Hall, 33 Gilmer St., Atlanta, GA 30303-3085 (404/658-4029).

MORRIS BROWN COLLEGE. PRE-ENGINEERING SUMMER PROGRAM. COURSES: chemistry; mathematics; critical thinking; reading; engineering graphics. ENROLLMENT: 30. GRADE(S): 12. QUALIFIERS: teacher recommendation; minority; 2.8+ GPA; SAT total of 900+; interest in engineering. DURATION/DATES: six weeks (6/21-8/31). EST. COST: none. SCHOLARSHIPS: yes (tuition reimbursement and full scholarship, if applicant enrolls in the college). APPLICATION DEADLINE: 3/15. CONTACT: Dr. Gloria Anderson, Morris Brown College, Atlanta, GA 30314 (404/525-7831, ext. 205).

***MORRIS BROWN COLLEGE. SUMMER PRE-ENGINEERING PROGRAM FOR 7TH AND 8TH GRADERS.** COURSES: mathematics; military science; reading; critical thinking; computer science; engineering graphics. ENROLLMENT: 20. GRADE(S): 7/8. QUALIFIERS: teacher recommendation; interest in engineering. DURATION/DATES: six weeks (6/21-7/31). EST. COST: none. SCHOLARSHIPS: none. APPLICATION DEADLINE: 3/15. CONTACT: Dr. G.L. Anderson, Morris Brown College, Atlanta, GA 30314 (404/525-7831, ext. 205).

WEST GEORGIA COLLEGE. SUPERIOR SOPHOMORE, GIFTED JUNIOR, AND SENIOR ENRICHMENT PROGRAM. COURSES: biology; chemistry; natural science; astronomy; geology; college abigebra; trigonometry; calculus;

*Planned, but not definite

computer science; psychology. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: SAT scores; H.S. GPA; recommendation of counselor and principal. DURATION/DATES: academic year and summer (11 weeks,quarter). EST. COST: $145/5-credit course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 7 days prior to each quarter. CONTACT: Patricia Hughes, Assistant to Vice President, West Georgia College, Carrollton, GA 30118 (404/834-1472).

COMMUTER/RESIDENTIAL

ARMSTRONG STATE COLLEGE. EARLY ADMISSION AND JOINT ENROLLMENT. COURSES: biology; chemistry; engineering; mathematics; physics. ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: GPA; SAT scores; principal of counselor recommendation; parent approval. DURATION/DATES: academic year and summer (8-10 weeks). EST. COST: $150 (in-state)/course; $430 (out-of-state)/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: varies. CONTACT: Dr. William Megathlin, Armstrong State College, 11935 Abercorn Street, Savannah, GA 31419 (912/927-5384).

AUGUSTA COLLEGE. EARLY ADMISSION AND JOINT ENROLLMENT. COURSES: all general education (core courses). ENROLLMENT: 30/academic year. GRADE(S): 12. QUALIFIERS: GPA; SAT scores; recommendations; parental approval. DURATION/DATES: academic year and summer (varies with each quarter during year). EST. COST: $195/course (in state); $578/course (out of state). SCHOLARSHIPS: none. APPLICATION DEADLINE: varies with each quarter. CONTACT: Luanne Hales, Admissions Recruiter, Office of Admissions, Augusta College, Aususta, GA 30910 (404/737-1405).

PIEDMONT COLLEGE. SCIENCE FOR HIGH SCHOOL STUDENTS. COURSES: mathematics; college algebra; trigonometry; calculus; general chemistry; general biology. ENROLLMENT: 10. GRADE(S): 12. QUALIFIERS: H.S. GPA; SAT. DURATION/DATES: 6/15-8/4. EST. COST: $465. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Jodie L. Burton, Piedmont College, Demerest, GA 30535 (404/778-8033).

RESIDENTIAL

GEORGIA INSTITUTE OF TECHNOLOGY. MINORITY INTRODUCTION TO ENGINEERING (MITE). RESEARCH/COURSES: science; mathematics; engineering subjects; chemistry. ENROLLMENT: 140. GRADE(S): 12. QUALIFIERS: Black, Hispanic, American Indian. DURATION/DATES: 1 week; July. EST. COST: transportation only. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: , Director of Special Programs, College of Engineering, Dean's Office, Georgia Institute of Technology, Atlanta, GA 30332 (404/894-3354).

MORRIS BROWN COLLEGE. PRE-COLLEGE SUMMER SCIENCE PROGRAM. RESEARCH/COURSES: biology; chemistry; mathematics; computer science; critical thinking; physics; reading. ENROLLMENT: 35. GRADE(S): 12. QUALIFIERS: minority; teacher recommendations; SAT total of 800+ or ACT equivalent; GPA 2.5+. DURATION/DATES: six weeks (6/21-7/31). EST. COST: none. SCHOLARSHIPS: tuition reimbursement; stipends and scholarship. APPLICATION DEADLINE: 3/31. CONTACT: Dr. M.A. Durojaiye, Biology Department, Morris Brown College, Atlanta, GA 30314 (404/525-7831, ext. 167).

UNIVERSITY OF GEORGIA. STUDENT SCIENCE TRAINING PROGRAM. RESEARCH: physical, biological, social and computer sciences. ENROLLMENT: 24. GRADE(S): 12. QUALIFIERS: top 10%; GPA; SAT. DURATION/DATES: 6/14-8/7. EST. COST: $1500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/6. CONTACT: J. Scott Shaw, Department of Physics and Astronomy, University of Georgia, Athens, GA 30602 (404/542-2870).

HAWAII

RESIDENTIAL

UNIVERSITY OF HAWAII AT HILO. HAWAII-SSTP. RESEARCH/COURSES: calculus; physics. ENROLLMENT: 32. GRADE(S): 12. QUALIFIERS: PSAT/SAT scores; essay; GPA of 3.0 or better for mathematics and science courses; school nomination. DURATION/DATES: 7 weeks (6/15-7/31). EST. COST: $950 (residents); $1450 (non-residents). SCHOLARSHIPS: yes, need basis. APPLICATION DEADLINE: 3/23. CONTACT: Suk R. Hwang, Hawaii-SSTP, University of Hawaii at Hilo, 523 W. Lanikaula Street, Hilo, HI 96720-4091 (808/961-9383 (office); 808/959-7181 (residence)).

IDAHO

RESIDENTIAL

***UNIVERSITY OF IDAHO. IDAHO SCIENCE CAMP '87.** COURSES: science; mathematics. ENROLLMENT: 40. GRADE(S): 7-10. QUALIFIERS: recommendation of counselor; interest in science and math; special encouragement for disadvantaged/minority students (especially Native Americans and Hispanics). DURATION/DATES: 6/21-7/3. EST. COST: $250. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Wayne R. Hager, Assistant Dean, College of Engineering, University of Idaho, Moscow, ID 83843 (208/885-7303).

UNIVERSITY OF IDAHO. JETS: INTRODUCTION TO ENGINEERING. COURSES: engineering (examination of engineering design problems related to such topics as energy, environmental protection, structures, water resources); introduction to CAD; programming languages; statistics; engineering design process. ENROLLMENT: 100. GRADE(S): 11/12. QUALIFIERS: 3.0+ GPA; H.S. science and math; possible interest in engineering or science career. DURATION/DATES: 7/12-7/24. EST. COST: $300. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Wayne Hager, Assistant Dean, College of Engineering, University of Idaho, Moscow, ID 83843 (208/885-7303).

ILLINOIS

COMMUTER

BRADLEY UNIVERSITY. INSTITUTE FOR GIFTED AND TALENTED YOUTH. COURSES: astronomy; physics; robotics; space science; ecology; geometry; number theory; chemistry. ENROLLMENT: 500+. GRADE(S): 2-12. QUALIFIERS: 2 of 3: 120 on standardized IQ instrument; achievement score grade level +1 for grades 2-8; grade level +2 for grades 9-12; two teacher/principal recommendations. DURATION/DATES: 2 3-week sessions (summer: 6/8-7/24); Saturdays for academic year. EST. COST: $75/course. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/31. CONTACT: Dr. James H. Stronge, Director, Bradley University Institute for Gifted and Talented Youth, Bradley University, Westlake Hall, Peoria, IL 61625 (309/677-3190).

***ILLINOIS INSTITUTE OF TECHNOLOGY. COMPUTER MODELING OF MATH AND SCIENCE.** COURSES: physics; chemistry; BASIC. ENROLLMENT: 140. GRADE(S): 9/10/11. QUALIFIERS: recommendation; grades (at least B in algebra). DURATION/DATES: 2 3-week sessions (6/22-8/1). EST. COST: $200. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/1. CONTACT: Prof. Peter Y. Johnson, Chemistry Dept., Illinois Institute of Technology, 33rd and Dearborn, Chicago, IL 60616 (312/567-3440).

SAINT XAVIER COLLEGE. SUMMER JUNIORS. COURSES: mathematics; computer science, chemistry; physics; biology. ENROLLMENT: 20. GRADE(S): 11. QUALIFIERS: must have fulfilled all H.S. requirements for the junior year prior to summer program; GPA of 3.0 or better. DURATION/DATES: 5 weeks (6/1-7/2; 7/6- 8/7). EST. COST: free. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/15. CONTACT: Debora Pitlik, Director, Academic Programming, Saint Xavier College, 3700 West 103rd Street, Chicago, IL 60655 (312/779-3300, ext. 422).

UNIVERSITY OF ILLINOIS AT CHICAGO. JUNIOR ENGINEERING TECHNICAL SOCIETY (JETS) SUMMER PROGRAM. COURSES: calculus; programming; electronics; lab visits; industry visits. ENROLLMENT: 30. GRADE(S): 12. QUALIFIERS: performance in H.S. courses; promise to excellence in engineering; open to all Illinois students. DURATION/DATES: 2 weeks (6/22-7/3). EST. COST: $75. SCHOLARSHIPS: some, based on need. APPLICATION DEADLINE: 5/15. CONTACT: Dr. P.L.E. Uslenghi, Associate Dean, College of Engineering (M/C 159), University of Illinois at Chicago, Box 4348, Chicago, IL 60680 (312/996-2311).

COMMUTER/RESIDENTIAL

BRADLEY UNIVERSITY, ILLINOIS CENTRAL COLLEGE AND TRI-COUNTY URBAN LEAGUE, INC.. PROJECT OPPORTUNITY. COURSES: computer usage; mathematics; biology; chemistry; physics. ENROLLMENT: 30-40. GRADE(S): 11/12. QUALIFIERS: Black or Hispanic; minimum 2.25 GPA; letters of recommendation; written commitment of both student and parent to attend scheduled sessions. DURATION/DATES: October-July. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 10/7. CONTACT: Nickie Roberson, Co-Director, Bradley University, Peoria, IL 61625 (309/677-1000).

MACMURRAY COLLEGE. GAP (GIFTED ACCELERATED PROGRAM). COURSES: economics; political science; pre-calculus mathematics; computer programming; psychology. ENROLLMENT: 75 (maximum 10-12/class). GRADE(S): 10/11/12. QUALIFIERS: IQ; SAT/PSAT achievement test scores; teacher recommendation. DURATION/DATES: 3 weeks (6/28-7/18). EST. COST: $480 (tuition); $300 (residence fees). SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Lois Freeman, MacMurray College, 447 E. College, Jacksonville, IL 62650 (217/245-6151, ext.270).

NORTHERN ILLINOIS UNIVERSITY. FIELD SCIENCE CAMP. COURSES: geography; field science. ENROLLMENT: 40. GRADE(S): 8/9. QUALIFIERS: standardized test scores; recommendation of teacher; student essay question. DURATION/DATES: 1 week (6/21-27). EST. COST: $200. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Kenneth Bowden, Department of Geography, Northern Illinois University, Dekalb, IL 60115 (815/753-6913). contact person: Deborah Booth, College of Continuing Education, Northern Illinois University

NORTHERN ILLINOIS UNIVERSITY. SCIENTIFIC DISCOVERY CAMP. COURSES: physics; earth sciences; chemistry; biology. ENROLLMENT: 40. GRADE(S): 10/11/12. QUALIFIERS: standardized test scores; recommendations by teachers; student essay question. DURATION/DATES: 1 week (6/14-20). EST. COST: $200. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Alan Voelker, Department of Curriculum & Instruction, Northern Illinois University, Dekalb, IL 60115 (815/753-6913). contact person: Deborah Booth, College of Continuing Education, Northern Illinois University

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE. CHALLENGE TO EXCELLENCE. COURSES: computer mathematics; environmental science; creative problem solving. ENROLLMENT: 140. GRADE(S): 7-10. QUALIFIERS: teacher recommendations; achievement test scores; IQ. DURATION/DATES: 2 weeks (7/5- 17). EST. COST: $225. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 3/30. CONTACT: Dr. John McIntyre, Department of Curriculum, Instruction and Media, Southern Illinois University, Carbondale, IL 62901 (618/536-2441).

UNIVERSITY OF ILLINOIS AT CHICAGO. JUNIOR ENGINEERING SCHOLARS SUMMER PROGRAM (JESSP). RESEARCH/COURSES: engineering graphics; programming languages; undergraduate research. ENROLLMENT: open. GRADE(S): 12. QUALIFIERS: Illinois residents in upper 25% of class; PSAT score of 110+; ACT score of 27+; SAT score of 1100+. DURATION/DATES: 8 weeks (6-29-8/21). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. P.L.E. Uslenghi, Associate Dean, College of Engineering (M/C 159), University of Illinois at Chicago, Box 4348, Chicago, IL 60680 (312/996-2311).

*Planned, but not definite

RESIDENTIAL

***CHICAGO STATE UNIVERSITY. LIFE SCIENCE CAREERS FOR HIGH SCHOOL STUDENTS.** RESEARCH: biology; chemistry; physics; mathematics. ENROLLMENT: 4. GRADE(S): 11/12. QUALIFIERS: strong academic record; teacher recommendations; interest in research. DURATION/DATES: 6/22-8/14. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Anthony M. Garcy, Dept. of Biological Sciences, Chicago State University; 95th St. and King Dr., Chicago, IL 60628 (312/995-2199).

***CHICAGO STATE UNIVERSITY. MINORITY HIGH SCHOOL STUDENT RESEARCH APPRENTICE PROGRAM.** RESEARCH: biology; chemistry; physics; mathematics. ENROLLMENT: 4. GRADE(S): 11/12. QUALIFIERS: strong academic record; teacher recommendations; interest in research. DURATION/DATES: 6/22-8/14. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Anthony M. Garcy, Dept. of Biological Sciences, Chicago State University, 95th St. and King Dr., Chicago, IL 60628 (312/995-2199).

NORTHWESTERN UNIVERSITY. NATIONAL HIGH SCHOOL INSTITUTE, ENGINEERING SCIENCE DIVISION. RESEARCH/COURSES: mathematics; chemistry; physics; biology; engineering; biomedical engineering. ENROLLMENT: 90. GRADE(S): 12. QUALIFIERS: gifted students with high PSAT or ACT scores; high rank in class; recommendations. DURATION/DATES: 5 weeks (7/5-8/8). EST. COST: $1680. SCHOLARSHIPS: limited in number and size. APPLICATION DEADLINE: 5/1. CONTACT: Edwin C. Rossow, Department of Civil Engineering, Northwestern University, 2155 Sheridan Road, Evanston, IL 60201 (312/491-3453).

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. MATHEMATICS AND THE COMPUTER. RESEARCH/COURSES: mathematics; computer science; . ENROLLMENT: 20. GRADE(S): 10/11/12. QUALIFIERS: H.S. mathematics grades; teacher recommendations; student letters; standardized test scores. DURATION/DATES: 2 weeks (7/5-17). EST. COST: $200 (Illinois residents); $600 (others); final amount not yet determined. SCHOLARSHIPS: Illinois residents who are accepted receive $450 scholarship equivalent. APPLICATION DEADLINE: 5/1. CONTACT: Larry Dornhoff, Associate Professor, Department of Mathematics, University of Illinois, Urbana, IL 61801 (217/333-5565).

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. MATHEMATICS SUMMER CAMP FOR GIFTED HIGH SCHOOL STUDENTS - CONVEX SETS AND COMBINATORICS. COURSES: mathematics. ENROLLMENT: 20. GRADE(S): 10/11/12. QUALIFIERS: standardized test scores; H.S. transcript; recommendation of H.S. teacher. DURATION/DATES: 2 weeks (7/5-17). EST. COST: $200 (residents); $600 (non-residents); final amount not yet determined. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/1. CONTACT: Hiram Paley, Department of Mathematics, 1409 West Green St., University of Illinois at Urbana-Champaign, Urbana, IL 61801 (217/333-1716).

INDIANA

COMMUTER

EARLHAM COLLEGE. HIGH ABILITY PROGRAM FOR HIGH SCHOOL SENIORS. COURSES: biology; chemistry; geology; environmental studies; physics; astronomy; mathematics. ENROLLMENT: open. GRADE(S): 11/12. QUALIFIERS: top 15% of class; enrolled in college prep curriculum; transcript; recommendation. DURATION/DATES: academic year (10 weeks/term). EST. COST: $425. SCHOLARSHIPS: included in cost. APPLICATION DEADLINE: 15 days prior to term. CONTACT: Ann Runyon, Box 23, Earlham College, Richmond, IN 47374 (1- 800/428-6958 (out-of-state); 1-800/382-6906 (in-state)).

WABASH COLLEGE. BRIDGE PROGRAM. COURSES: mathematics; biology; chemistry. ENROLLMENT: 20/yr for four years. GRADE(S): 9-12. QUALIFIERS: economically disadvantaged; working at ability level in 8th grade; potential desire to do college level work. DURATION/DATES: academic year and summer (two weeks). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Susan Swan, Wabash College, Crawfordsville, IN 47933 (317/362-1400, ext. 251 or 301).

COMMUTER/RESIDENTIAL

EARLHAM COLLEGE. EXPLORE-A-COLLEGE. COURSES: biology; psychology; writing. ENROLLMENT: 25/course. GRADE(S): 10/11/12. QUALIFIERS: 450V or 450M on PSAT/SAT; 90th percentile on SAT verified by H.S.. DURATION/DATES: 2 weeks (6/21-7/3). EST. COST: $525. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Rebecca E. McDowell, Box 188, Earlham College, Richmond, IN 47374 (1-800/428-6958 (out-of-state); 1-800/382-6906 (in-state)).

INDIANA STATE UNIVERSITY. SUMMER HONORS SEMINAR. COURSES: physics; chemistry; archaelogy; mathematics; health sciences; electronics; computer science; manufacturing and design. ENROLLMENT: 500. GRADE(S): 11. QUALIFIERS: upper 25% class rank. DURATION/DATES: 3 2-week sessions (6/14-8/7). EST. COST: $195 (Indiana resident); $340 (out-of-state). SCHOLARSHIPS: upon completion (competitive). APPLICATION DEADLINE: 5/15. CONTACT: Allen D. Varner, Indiana State University, Instructional Services, Terre Haute, IN 47809 (812/237-2335 (Indiana); 800/551-1639 (out-of-state)).

TRI-STATE UNIVERSITY. EARLY ENTRANCE. COURSES: biology; chemistry; physics; college algebra; calculus; computer programming; composition; humanities; psychology. ENROLLMENT: varies. GRADE(S): 11/12. QUALIFIERS: 3.0 GPA; school recommendation. DURATION/DATES: 10 weeks. EST. COST: varies. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/1; 6/1; 9/1; 12/1. CONTACT: Kim Robert Bryan, Director of Admissions, Tri-State University, Angola, IN 46703- 0307 (219/665-3141).

RESIDENTIAL

BALL STATE UNIVERSITY. HONORS COLLEGE SUMMER PROGRAM. COURSES: chemistry; biology; psychology; architecture; business; education; industrial technology. ENROLLMENT: 125/session (15-30/class). GRADE(S): 12. QUALIFIERS: 3.0 H.S. GPA; top 20% of H.S. class. DURATION/DATES: 2 weeks; 7/13-24 and 8/1-13. EST. COST: $225. SCHOLARSHIPS: all receive tuition waiver. APPLICATION DEADLINE: 6/15. CONTACT: Arno F. Wittig, Dean, Honors College, Ball State University, Muncie, IN 47306 (317/285-1024).

BALL STATE UNIVERSITY. STUDENT SCIENCE TRAINING (SST) RESEARCH FOR HIGH ABILITY HIGH SCHOOL STUDENTS: NUCLEAR RADIATION APPLICATIONS; SOLAR ENERGY APPLICATIONS AND MODELING; AND INVESTIGATIONS IN STELLAR ASTRONOMY. RESEARCH: physics; astronomy. ENROLLMENT: 15 (4- 6/topic). GRADE(S): 10/11/12. QUALIFIERS: GPA; class rank; teacher recommendation. DURATION/DATES: 4 weeks (7/13-8/7); 6 weeks (6/29-8/7). EST. COST: $500 (4 weeks); $700 (6 weeks). SCHOLARSHIPS: yes, $200 to $400 per student pending a grant. APPLICATION DEADLINE: 4/15. CONTACT: Dr. David R. Ober, Department of Physics and Astronomy, Ball State University, Muncie, IN 47306 (317/285-8860).

BALL STATE UNIVERSITY. STUDENT SCIENCE TRAINING (SST) WORKSHOPS FOR HIGH ABILITY HIGH SCHOOL STUDENTS: ANALOG AND DIGITAL ELECTRONICS; LASERS, HOLOGRAPHY, AND OPTICAL PHENOMENA; MEDICAL APPLICATIONS OF NUCLEAR RADIATION. COURSES: physics; engineering. ENROLLMENT: 70 (20- 30/session). GRADE(S): 10/11/12. QUALIFIERS: GPA; class rank; teacher recommendation. DURATION/DATES: (6/22-7/2, Electronics); (7/6-10, Lasers and Holography); (7/13-17, Medical Radiation). EST. COST: $175/session plus room and board. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/15. CONTACT: Dr. David R. Ober, Department of Physics and Astronomy, Ball State University, Muncie, IN 47306 (317/285-8860).

ROSE-HULMAN INSTITUTE OF TECHNOLOGY. OPERATION CATAPULT. RESEARCH/COURSES: engineering; physical sciences; commputer programming. ENROLLMENT: 72/session. GRADE(S): 11. QUALIFIERS: PSAT scores; class rank; grades; recommendations; male students only. DURATION/DATES: 2 3-week sessions (6/14-7/3; 7/12-31). EST. COST: $800. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Noel E. Moore, Rose-Hulman Institute of Technology, Terre Haute, IN 47803-3999 (812/877-1511).

ROSE-HULMAN INSTITUTE OF TECHNOLOGY. THE NEW RETUPMOC. COURSES: computer science (PASCAL and 8088 Assembly Languages). ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: academic record; strong math and science background; previous programming experience in any language; teacher recommendation. DURATION/DATES: 6/14-26 (PASCAL); 6/28-7/10 (8088 Assembly Language). EST. COST: $575. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Cary Laxer, Dept. of Computer Science, Rose-Hulman Institute of Technology, 5500 Wabash Ave., Terre Haute, IN 47803 (812/877-1511, ext. 429).

TRI-STATE UNIVERSITY. MINORITIES IN ENGINEERING. RESEARCH/COURSES: engineering. ENROLLMENT: 30. GRADE(S): 10-12. QUALIFIERS: academic record; recommendation. DURATION/DATES: 7/26-31. EST. COST: $50. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 7/15. CONTACT: Roger J. Hawks, Dean of Engineering, Tri-State University, Angola, IN 46703-0307 (219/665- 3141).

TRI-STATE UNIVERSITY. WOMEN AND SCIENCE. RESEARCH/COURSES: physical and life sciences. ENROLLMENT: 30. GRADE(S): 10-12. QUALIFIERS: academic record; recommendation. DURATION/DATES: 7/12-17; 7/19-24. EST. COST: $50. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 7/1. CONTACT: Jerry Beehler, Dean of Arts and Sciences, Tri-State University, Angola, IN 46703-0307 (219/665- 3141).

TRI-STATE UNIVERSITY. WOMEN IN ENGINEERING. RESEARCH/COURSES: engineering. ENROLLMENT: 30. GRADE(S): 10-12. QUALIFIERS: academic record; recommendation. DURATION/DATES: 7/12-17; 7/19-24. EST. COST: $50. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 7/1. CONTACT: Roger J. Hawks, Dean of Engineering, Tri-State University, Angola, IN 46703-0307 (219/665- 3141).

IOWA

COMMUTER

UNIVERSITY OF NORTHERN IOWA AND MALCOLM PRICE LABORATORY SCHOOL. PROGRAMS FOR TALENTED AND MOTIVATED MIDDLE SCHOOL STUDENTS. RESEARCH/COURSES: life, earth and physical science; mathematic investigations; computer programming; French; Spanish; creative writing; keyboarding. ENROLLMENT: 120. GRADE(S): 5-9. QUALIFIERS: ITBS/ITED; teacher recommendation. DURATION/DATES: 5 weeks (6/8-7/10). EST. COST: $180 plus lab fee. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Charles Moore, 19th and Campus, Cedar Falls, IA 50613 (319/273-2138).

RESIDENTIAL

BUENA VISTA COLLEGE. SUMMER SCIENCE INSTITUTE. RESEARCH/COURSES: physics; chemistry; biology; mathematics; computer science. ENROLLMENT: 25. GRADE(S): 11. QUALIFIERS: H.S. teacher's recommendations; grades. DURATION/DATES: 1 week (6/21-26). EST. COST: $190. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/8. CONTACT: Pro-fessor Don Larsen, School of Natural Science, Buena Vista College, Storm Lake, IA 50588 (712/749- 2006).

IOWA STATE UNIVERSITY. CY-TAG (CHALLENGES FOR YOUTH - TALENTED AND GIFTED). COURSES: pre-calculus (SMPY Model); biotechnology (genetic engineering, tissue culture, plant and animal physiology; biochem-

*Planned, but not definite

istry); creative writing. ENROLLMENT: 55 (25-precalculus; 15-biotechnology; 15-creative writing). GRADE(S): 8/9. QUALIFIERS: 500+ SAT/M,430+ SAT/V when test taken in seventh grade. DURATION/DATES: 3 weeks (6/20-7/12). EST. COST: $490. SCHOLARSHIPS: yes, merit and need based. APPLICATION DEADLINE: 4/27. CONTACT: Sue Ellen Baltzer, CY-TAG Coordinator, Department of Psychology, Iowa State University, Ames, IA 50011 (515/294-1772).

UNIVERSITY OF DUBUQUE. SUMMER EXPLORATION OF THE ENVIRONMENT IN DUBUQUE (SEED). COURSES: environmental field studies. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: academic record, H.S. science teacher's recommendation. DURATION/DATES: 3 weeks (7/5-24). EST. COST: $515. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/15. CONTACT: Robert M. Miller, Department of Biology, University of Dubuque, Dubuque, IA 52001 (319/589- 3143).

UNIVERSITY OF IOWA. SECONDARY STUDENT TRAINING PROGRAM. RESEARCH/COURSES: all areas of research; biology; physics; astronomy; Yellowstone field studies. ENROLLMENT: 150. GRADE(S): 10/11/12. QUALIFIERS: GPA; class rank. DURATION/DATES: 4 summer sessions (6/8-7/31; 6/22-7/31; 7/6-31; 6/22-7/24). EST. COST: to be announced later. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/22. CONTACT: Edward L. Pizzini, Iowa-SSTP, 455 Van Allen Hall, The University of Iowa, Iowa City, IA 52242 (319/353-4102).

KANSAS

COMMUTER/RESIDENTIAL

UNIVERSITY OF KANSAS. MIDWESTERN COMPUTER CAMP. COURSES: computer programming and computer science (beginning, intermediate and advanced levels). ENROLLMENT: 28/session (beginners); 14/session (others). GRADE(S): 7-12. QUALIFIERS: intermediate and advanced sessions require knowledge of the fundamentals of BASIC programming. DURATION/DATES: several 1-week sessions; 6/87-7/87. EST. COST: beginner $225 (residential), $160 (commuting); others $240 (residential), $180 (commuting). SCHOLARSHIPS: none. APPLICATION DEADLINE: none. CONTACT: Herbert Harris, Computer Center, University of Kansas, Lawrence, KS 66045 (913/864-4291).

KENTUCKY

COMMUTER

NORTHERN KENTUCKY UNIVERSITY. EARLY ADMISSION PROGRAM. COURSES: biology; chemistry; geology; physics; mathematics; astronomy; computer science and various technical areas (electrical; chemical; construction, manufacturing). ENROLLMENT: 48. GRADE(S): unknown. QUALIFIERS: recommendations. DURATION/DATES: 15 weeks/semester. EST. COST: $42/hr (in-state); $120/hr (out-of-state). SCHOLARSHIPS: none. APPLICATION DEADLINE: first day of class. CONTACT: William Russell, Director of Admissions, Office of Admissions, Northern Kentucky University, Highland Heights, KY 41076 (606/572-5220).

RESIDENTIAL

BEREA COLLEGE. CHALLENGE '87: A PROGRAM FOR OUTSTANDING HIGH SCHOOL STUDENTS. RESEARCH/COURSES: biology; theoretical structures in computer science. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: B average overall; financial need. DURATION/DATES: 6/14-7/10. EST. COST: $235. SCHOLARSHIPS: yes, based on need. APPLICATION DEADLINE: 5/15. CONTACT: Charles E. Morgan, CPO 2344, Berea College, Berea, KY 40404 (606/986-9341, ext. 101).

CENTRE COLLEGE. SENIOR SCHOLARS. COURSES: computers in chemistry and physics; computers and math; 3 other non-science courses. ENROLLMENT: 12/course. GRADE(S): 12. QUALIFIERS: completion of junior year; strong academic record in a college preparatory program; 2 years algebra; 1 year geometry and chemistry. DURATION/DATES: 6/7-26. EST. COST: $685. SCHOLARSHIPS: financial aid up to full cost is available. APPLICATION DEADLINE: 5/4. CONTACT: Preston Miles, Centre College, Danville, KY 40422 (606/236-5211).

WESTERN KENTUCKY UNIVERSITY. WESTERN KENTUCKY UNIVERSITY SUMMER PROGRAM FOR VERBALLY AND MATHEMATICALLY PRECOCIOUS YOUTH. COURSES: precalculus mathematics; physics; molecular biology; computer science (PASCAL); expository writing; psychology; humanities; and Latin. ENROLLMENT: 120; not more than 15/class. GRADE(S): 8-11. QUALIFIERS: SAT-m 500+ or SAT-v 430+. DURATION/DATES: 6/28-7/18. EST. COST: $890. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Julia Roberts, College of Education, Western Kentucky University, Bowling Green, KY 42101 (502/745-6323).

LOUISIANA

COMMUTER

LOUISIANA STATE UNIVERSITY MEDICAL CENTER. SUMMER SCIENCE RESEARCH EMPLOYMENT PROGRAM FOR MINORITY STUDENTS. RESEARCH: n/a. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: minimum 2.5 GPA or 250 word essay; minimum of 16 of ACT; interview. DURATION/DATES: 6/8-7/31. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/15. CONTACT: Oretha Haley, Louisiana State University Medical Center, 1440 Canal Street, Suite 1510, New Orleans, LA 70112-2784 (504/568-4952).

UNIVERSITY OF NEW ORLEANS. GEOLOGY AND GEOPHYSICS SUMMER MINORITY PROGRAM. COURSES: geology; geophysics. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: H.S. grades; letters of recommendation. DURATION/DATES: 3 weeks (6/1-21). EST. COST: none. SCHOLARSHIPS: all students reveive $200 stipend. APPLICATION DEADLINE: 5/15. CONTACT: Dr. Louis A. Fernandez, College of Sciences, University of New Orleans, New Orleans, LA 70148 (504/286-6563).

COMMUTER/RESIDENTIAL

LOUISIANA STATE UNIVERSITY. LSU PROGRAMS FOR GIFTED AND HIGH- ACHIEVING STUDENTS. RESEARCH/COURSES: science; mathematics; arts; humanities. ENROLLMENT: 600 (100 residential; 500 commuter). GRADE(S): 8-12. QUALIFIERS: classified as gifted; B+ average. DURATION/DATES: 2 3-week sessions (6/7-27; 7/5-25). EST. COST: $650 (residence program); $65/course. SCHOLARSHIPS: not likely. APPLICATION DEADLINE: no definite date. CONTACT: Janet Sheldon, 177 Pleasant Hall, Louisiana State University, Baton Rouge, LA 70803-1520 (1-800/CALL-LSU, ext. 6621; 504/388-6621).

LOYOLA UNIVERSITY-NEW ORLEANS. EARLY SCHOLARS PROGRAM. COURSES: biology; chemistry; drama; geography; communications; history; computer science; foreign languages; physics; political science; psychology; sociology; visual arts. ENROLLMENT: varies. GRADE(S): 12. QUALIFIERS: 24 ACT or 1000 SAT; 3.0 GPA; exceptional ability; two letters of recommendation from H.S. administration. DURATION/DATES: academic year and summer (May-June, July-August). EST. COST: $98-180/hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: 8/1 (fall); 1/1 (spring); 5/1 (summer). CONTACT: Willie L. Pappas, Jr., Loyola University-Admissions Office, 6363 St. Charles Ave., Box 18, New Orleans, LA 70118 (504/865-3240).

MCNEESE STATE UNIVERSITY. GOVERNOR'S PROGRAM FOR GIFTED CHILDREN. RESEARCH/COURSES: mathematics; physics; computer science; astronomy; philosophy; composition; humanities; art; music; drama; debate. ENROLLMENT: 100. GRADE(S): 7-11. QUALIFIERS: recommendation from school principal; intellectual ability; standardized test scores;. DURATION/DATES: 7 weeks (6/7-7/25). EST. COST: $950 (includes room and board for seven weeks, weekends included). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/16. CONTACT: George Middleton, Ph.D., Director, Governor's Program for Gifted Children, McNeese State University, Lake Charles, LA 70609 (318/437-5446; 318/474-9094).

TULANE UNIVERSITY. PROJECT TALENT. COURSES: science; mathematics; engineering; computer sciences; biology; humanities. ENROLLMENT: 50. GRADE(S): 7-12. QUALIFIERS: strong GPA (A or B avg.); gifted certification; teacher recommendations; interview; SAT/ACT scores, if available. DURATION/DATES: academic year and summer(4 weeks). EST. COST: $150/4-credit course. SCHOLARSHIPS: yes (Duke Talent Scholarship). APPLICATION DEADLINE: 12/1 (spring); 8/1 (fall); 5/1 (summer). CONTACT: Lynell Cadray, Program Coordinator, Tulane University, Office of Undergraduate Admissions, Gibson Hall, New Orleans, LA 70118 (504/865-5178).

RESIDENTIAL

LOUISIANA STATE UNIVERISTY. REHAMS - RECRUITMENT INTO ENGENEERING OF HIGH ABILITY MINORITY STUDENTS, PHASE 1. COURSES: mathematics; English; computer science; engineering projects; plant trips; professionalism. ENROLLMENT: 15. GRADE(S): 12. QUALIFIERS: high ability in mathematics and science; high test scores; minority status. DURATION/DATES: 4 weeks (6/7-7/2). EST. COST: weekend meals; transportation. SCHOLARSHIPS: recieve if attend LSU. APPLICATION DEADLINE: 5/1. CONTACT: Tammi Y. Forbes, College of Engineering, Louisiana State University, Baton Rouge, LA 70803-6401 (504/388-5731).

MAINE

COMMUTER

COLBY COLLEGE. EDUCATIONAL OPPORTUNITIES FOR HIGH SCHOOL SENIORS. COURSES: mathematics (calculus,linear algebra); biology; chemistry; geology; astronomy; physics. ENROLLMENT: varies. GRADE(S): 11/12. QUALIFIERS: transcript; interview; recommendation from H.S. in the greater Waterville area. DURATION/DATES: academic year (semester). EST. COST: tuition is waived. SCHOLARSHIPS: full tuition waiver for all students admitted to program. APPLICATION DEADLINE: 8/1 (fall) and 12/1 (spring). CONTACT: Thomas Kopp, Associate Dean of Admissions, Colby College, Mayflower Hill Drive, Waterville, ME 04901 (207/872-3168).

UNIVERSITY OF MAINE. HIGH SCHOOL STUDENT ENROLLMENT PROGRAM. COURSES: all courses for which student is prepared. ENROLLMENT: 11. GRADE(S): 12. QUALIFIERS: prior academic preparation and performance; teacher recommendations. DURATION/DATES: academic semesters. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: prior to beginning of semester. CONTACT: William Munsey, Admissions Office, Chadbourne Hall, University of Maine, Orono, ME 04469 (207/581-1561).

UNIVERSITY OF MAINE AT PRESQUE ISLE. PRE-COLLEGE EXPERIENCE PROGRAM. COURSES: algebra; pre-calculus; calculus; statistics; biology; chemistry; geology; physics. ENROLLMENT: 10/semester. GRADE(S): 11/12. QUALIFIERS: ranks in top 10% of H.S. class; recommendation and approval of guidance director, principal, parent/guardian. DURATION/DATES: academic year. EST. COST: tuition waiver for 3-4 credit hours; additional courses $47.10/credit hour. SCHOLARSHIPS: limit of 10. APPLICATION DEADLINE: before beginning of semester. CONTACT: Dr. Richard Kimball, Acting Vice President of Academic Affairs; University of Maine at Presque Isle, 181 Main Street, Presque Isle, ME 04769 (207/764-0311).

RESIDENTIAL

HIRAM COLLEGE THROUGH SHOALS MARINE LABORATORY. INTRODUCTION TO MARINE BIOLOGY. RESEARCH/COURSES: biology. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: GPA; recommendation from teacher; science course background. DURATION/DATES: 7/27-8/1. EST. COST: $350. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CON-

*Planned, but not definite

TACT: Dennis James Taylor, Ph.D., Biology Dept., Hiram College, Hiram, OH 44234 (216/569-5264). Program takes place at the Shoals Marine Laboratory in Kittery, Maine.

THE JACKSON LABORATORY. SUMMER STUDENT PROGRAM. RESEARCH: mammalian genetics. ENROLLMENT: 12. GRADE(S): 12. QUALIFIERS: academic record; teacher recommendations; interest in science; aptitude for working independently. DURATION/DATES: 9 weeks (6/14-8/11). EST. COST: $1500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/30. CONTACT: Mr. Robert Shea, The Jackson Laboratory, Bar Harbor, ME 04609 (207/288-3371, ext. 303).

MARYLAND

COMMUTER

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. See listing in Washington, D.C.

***HOOD COLLEGE. HOOD COLLEGE SUMMER CAMPS.** RESEARCH/COURSES: computer science; marine and environmental biology. ENROLLMENT: 72. GRADE(S): 6-12. QUALIFIERS: interest and ability. DURATION/DATES: one week. EST. COST: $85-100. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 7/1. CONTACT: Renee Kramer, Hood College, Center for Educational Resources, Frederick, MD 21701 (301/663-3131, ext. 305).

HOOD COLLEGE. HOOD START. COURSES: biology; chemistry; environmental studies; physics; astronomy; computer science; survey of mathematics; discrete mathematics; differential calculus. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: class rank; GPA; inteview; essay; recommendation. DURATION/DATES: academic year and summer (semesters). EST. COST: $117.50/credit hour. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1 (summer); 8/1 (fall); 12/1 (spring). CONTACT: Carolyn Lewis, Admissions Office, Hood College, Frederick, MD 21701 (301/663-3131, ext. 235).

SAINT MARY'S COLLEGE OF MARYLAND. CONCURRENT ENROLLMENT PROGRAM. COURSES: biology; chemistry; physics; natural science. ENROLLMENT: 16+/semester. GRADE(S): 11/12. QUALIFIERS: H.S. recommendations; GPA. DURATION/DATES: academic year. EST. COST: $55/credit hour plus fees. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/15. CONTACT: Michael L. Berger, Division of Human Development, St. Mary's College of Maryland, St. Mary's City, MD 20686 (301/862-0337).

UNIVERSITY OF MARYLAND. BOTANY TRAINING PROGRAM FOR HIGH ABILITY JUNIOR AND SENIOR HIGH SCHOOL STUDENTS. RESEARCH/COURSES: botany. ENROLLMENT: varies. GRADE(S): 7-12. QUALIFIERS: top 5% in class; GPA; recommendation by science teacher; demonstrated interest in area. DURATION/DATES: academic year and summer. EST. COST: variable. SCHOLARSHIPS: yes. APPLICATION DEADLINE: none. CONTACT: Dr. Linda R. Berg, Department of Botany, H.J. Patterson Hall, University of Maryland, College Park, MD 20742 (301/454-3812).

COMMUTER/RESIDENTIAL

JOHNS HOPKINS UNIVERSITY. CENTER FOR THE ADVANCEMENT OF ACADEMICALLY TALENTED YOUTH (CTY). COURSES: mathematics; sciences; social sciences; computer science. ENROLLMENT: 3000. GRADE(S): 8-11. QUALIFIERS: SAT/m 500+ and SAT total 930+ before age 13. DURATION/DATES: 3 weeks (6/28-7/17); 6 weeks (7/19-8/8). EST. COST: $1100/3-week session. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/4. CONTACT: Dr. Sharon Higham, Director of Academic Programs, The Johns Hopkins University/C.T.Y, 34th and Charles Streets, Baltimore, MD 21218 (301/338-8427). programs will be held in Lancaster, PA; Carlisle, PA; Saratoga Springs, NY; Claremont, CA; Baltimore, MD.

TOWSON STATE UNIVERSITY. COLLEGE IN ESCROW. COURSES: biology; chemistry; computer/information sciences; mathematics; physics; physical science. ENROLLMENT: varies. GRADE(S): 12. QUALIFIERS: B average; recommendation of H.S. counselor; interview. DURATION/DATES: academic year and summer. EST. COST: $51/credit hour. SCHOLARSHIPS: yes, covering tuition for one course/semester. APPLICATION DEADLINE: varies. CONTACT: Carolyn Harriger, College of Continuing Studies, Towson State University, Towson, MD 21204 (301/321-2471).

UNIVERSITY OF MARYLAND. SUMMER STUDY IN ENGINEERING PROGRAM. COURSES: engineering subjects. ENROLLMENT: 50. GRADE(S): 11. QUALIFIERS: 3.0 GPA or better; PSAT/SAT score; mathematics grades B or better. DURATION/DATES: 6 weeks (7/13-8/21). EST. COST: $500. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/15. CONTACT: Marilyn R. Berman, College of Engineering, University of Maryland, College Park, MD 20742 (unknown).

RESIDENTIAL

U.S. NAVAL ACADEMY. NAVAL ACADEMY SUMMER SEMINAR. COURSES: computer science; chemistry; physics; engineering; oceanography; architecture. ENROLLMENT: 300/session. GRADE(S): 12. QUALIFIERS: PSAT minimum 60 verbal, 67 math. DURATION/DATES: 2 consecutive 1-week sessions (6/7-12 & 6/14-19). EST. COST: $100. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/25. CONTACT: Lt. Steve Colon, USN, Candidate Guidance Office, U.S. Naval Academy, Annapolis, MD 21402-5018 (1-800/638-9156).

WESTERN MARYLAND COLLEGE. SUMMER SCIENCE PROGRAM. COURSES: cell biology; ecology. ENROLLMENT: 20 (cell biology); 20 (ecology). GRADE(S): 10/11. QUALIFIERS: grades; teacher recommendations. DURATION/DATES: 1 week (ecology 7/19-24; cell biology 7/12-17). EST. COST: $170. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: spring. CONTACT: Michael M. Brown, Biology Department, Western Maryland College, Westminster, MD 21157 (301/848- 7000).

MASSACHUSETTS

COMMUTER

BOSTON COLLEGE. VISITING STUDENTS. COURSES: physics; mathematics. ENROLLMENT: 2. GRADE(S): 12. QUALIFIERS: H.S. recommendations; instructor's authorization. DURATION/DATES: academic year and summer. EST. COST: $600-$1500. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Rev. James A. Woods, S.J., Boston College, Evening College, Fulton Hall 314, Chestnut Hill, MA 02167 (617/552-3900).

BRANDEIS UNIVERSITY. LECTURES IN "FOREFRONT TOPICS IN SCIENCE". COURSES: chemistry; physics; mathematics; biology; biochemistry; psychology; computer science. ENROLLMENT: 60-200/week. GRADE(S): unknown. QUALIFIERS: interest only. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Dr. Arthur H. Reis, Jr., and Ms. Elizabeth Wilson, Co-Directors, Brandeis University, Office of the Provost and Dean of the Faculty-Irving 104, Waltham, MA 02254 (617/736-2105; 617/736-2109).

NORTHEASTERN UNIVERSITY. ABCD STUDENT TRAINING AND EDCUATION PROGRAM (STEP). COURSES: reading; mathematics. ENROLLMENT: 76. GRADE(S): 9/10. QUALIFIERS: students living below the poverty level; scoring below 40th percentile on standardized tests. DURATION/DATES: 7 weeks (July- August). EST. COST: none. SCHOLARSHIPS: the students are paid minimum wage for both the 15 hours a week they spend studying and 15 hours that they work. APPLICATION DEADLINE: none. CONTACT: Carol McCarthy, Action for Boston Community Development, 178 Tremont Street, Boston, MA 02111 (617/357-6000).

NORTHEASTERN UNIVERSITY. NORTHEASTERN UNIVERSITY ACADEMY. COURSES: mathematics; English; science; computers; PSAT preparation;. ENROLLMENT: 85 (summer); 50 (academic year). GRADE(S): 7/8. QUALIFIERS: live in Northeastern University area; desire to improve themselves; speak English. DURATION/DATES: academic year and summer. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: mid-May. CONTACT: Dr. Tedesco, (contact Carla Obias) Northeastern University Academy, Northeastern University, 102 Cahners Hall, 360 Huntington Avenue, Boston, MA 02115 (617/437- 2328).

SPRINGFIELD COLLEGE. REAL WORLD SCIENCE. RESEARCH: science. ENROLLMENT: 2 programs, 12 students/program. GRADE(S): 6-10. QUALIFIERS: recommendation of teacher; essay. DURATION/DATES: 6/29-7/31. EST. COST: $250. SCHOLARSHIPS: yes. APPLICATION DEADLINE: unknown. CONTACT: Dr. Robert Barkman, Springfield College, Bemis Hall, Springfield, MA 01109 (413/788- 3288).

COMMUTER/RESIDENTIAL

BOSTON COLLEGE. BOSTON COLLEGE EXPERIENCE. COURSES: biology; chemistry; physics; calculus. ENROLLMENT: 300. GRADE(S): 12. QUALIFIERS: outstanding academic record. DURATION/DATES: 6 weeks (6/29-8/6). EST. COST: $1600 (courses, housing, meal plan). SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/22. CONTACT: Elizabeth A. Strain, Boston College, Fulton Hall 314, Chestnut Hill, MA 02167 (617/552-3900).

BOSTON UNIVERSITY. RESEARCH INTERNSHIP IN THE SCIENCES. RESEARCH: biochemistry; biology, biophysics; chemistry; engineering, physics. ENROLLMENT: 20. GRADE(S): 12. QUALIFIERS: grades; recommendation; PSAT/SAT scores; previous experience in science. DURATION/DATES: 6 weeks (6/28-8/8). EST. COST: $2000. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 4/15. CONTACT: Professor George O. Zimmerman, Department of Physics, Boston University, 590 Commonwealth Avenue, Boston, MA 02215 (617/353-2185). or contact: Mr. Carl Sessa, Boston University, 755 Commonwealth Avenue, Boston, MA 02215; Tel: 617/353-2980.

BRANDEIS UNIVERSITY. SUMMER RESEARCH IN LIFE SCIENCES AREAS. RESEARCH: chemistry; physics; mathematics; computer science; biology; biochemistry. ENROLLMENT: 6. GRADE(S): 11/12. QUALIFIERS: GPA; recommendations; research interests. DURATION/DATES: 8 weeks (June-August). EST. COST: none. SCHOLARSHIPS: $1200 stipend/participant, subject to funding availability. APPLICATION DEADLINE: June. CONTACT: Dr. Arthur H. Reis, Jr., Associate Dean for Resources and Planning, Brandeis University, Office of the Provost and Dean of the Faculty-Irving 104, Waltham, MA 02254 (617/736-2015; 617/736-2019).

MOUNT HOLYOKE COLLEGE. SUMMERMATH. COURSES: mathematics; focus on the process of generalizing, abstracting or developing flexible approaches to mathematical concepts or methods. ENROLLMENT: 100. GRADE(S): 9-12. QUALIFIERS: desire to attend. DURATION/DATES: 6/28-8/8. EST. COST: $2,250 (residential); $1,400 (commuting). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Dr. James Morrow, and Dr. Charlene Morrow, Co-Directors, 302B Shattuck Hall, Mount Holyoke College, South Hadley, MA 01075 (413/538-2069).

NORTHEASTERN UNIVERSITY. PRE-NUPRIME (NORTHEASTERN UNIVERSITY'S PROGRESS IN MINORITY ENGINEERING). RESEARCH/COURSES: science; mathematics; engineering. ENROLLMENT: 38. GRADE(S): 9-12. QUALIFIERS: interest in engineering. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 9/1. CONTACT: David Blackman, Northeastern University College of Engineering, 255 Snell Building, 360 Huntington Avenue, Boston, MA 02115 (617/437-2156).

RADCLIFFE COLLEGE (IN COOPERATION WITH HARVARD SUMMER SCHOOL). RADCLIFFE SUMMER PROGRAM IN SCIENCE. COURSES: astronomy; biology; computer science; mathematics; statistics; geology; science and society; chemistry. ENROLLMENT: 50. GRADE(S): 12. QUALIFIERS: female; academic ability; recommendations; motivation. DURATION/DATES: 8 weeks (6/28-8/21). EST. COST: $2675 plus books, travel and incidentals.

SCHOLARSHIPS: limited to need. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Susan T. Hollis, Radcliffe College, 111 Fay House, 10 Garden Street, Cambridge, MA 02138 (617/495-8626).

RESIDENTIAL

HAMPSHIRE COLLEGE. SUMMER STUDIES IN MATHEMATICS. COURSES: mathematics (as a creative process rather than a collection of results). ENROLLMENT: unknown. GRADE(S): 11-12. QUALIFIERS: recommendation by H.S. sponsor; applicant letter; H.S. transcript; completion of Hampshire College admission's test. DURATION/DATES: six weeks (7/5-8/15). EST. COST: $1275 (includes tuition, room and board, recreation, health). SCHOLARSHIPS: yes. APPLICATION DEADLINE: none, but early is preferred. CONTACT: Prof. David C. Kelly, Summer Studies in Mathematics, Hampshire College, Box NS, Amherst, MA 01002 (413/549-4600, ext. 375; 413/467-9854).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY. CAREERS IN MEDICINE. COURSES: chemistry; mathematics (calculus). ENROLLMENT: 25. GRADE(S): 11. QUALIFIERS: PSAT/SAT scores; grades; personal statement; letter of recommendation. DURATION/DATES: 6 weeks (6/28-8/8). EST. COST: travel to and from school only. SCHOLARSHIPS: for travel only in hardship cases. APPLICATION DEADLINE: 3/1. CONTACT: Profesor Ernest G. Cravalho, Massachusetts Institute of Technology, Room E25-335, Cambridge, MA 02139 (617/253-2632).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY. MINORITY INTRODUCTION TO ENGINEERING AND SCIENCE (MITES). COURSES: physics; mathematics; biochemistry; engineering design; digital electronics. ENROLLMENT: 40. GRADE(S): 11. QUALIFIERS: grades; PSAT/SAT scores; letter of recommendation; personal statement. DURATION/DATES: 6 weeks (6/28-8/8). EST. COST: none, travel must be provided. SCHOLARSHIPS: for travel only in hardship cases. APPLICATION DEADLINE: 3/1. CONTACT: Professor Ernest G. Cravalho, Massachusetts Institute of Technology, Room E25-335, Cambridge, MA 02139 (617/253-1415).

MOUNT HOLYOKE COLLEGE. SUMMER MATH. COURSES: mathematics. ENROLLMENT: 100. GRADE(S): 10/11/12. QUALIFIERS: a strong desire to learn mathematics, as indicated in an essay. DURATION/DATES: 6 weeks (6/28-8/8). EST. COST: $2250. SCHOLARSHIPS: only a few local, at present. APPLICATION DEADLINE: 6/1. CONTACT: Charlene Morrow, and James Morrow, Summer Math, 302 Shattuck Hall, Mount Holyoke College, South Hadley, MA 01075 (413/538-2608).

NORTHEASTERN UNIVERSITY. INSTITUTE FOR MINORITY HIGH SCHOOL STUDENTS "WHAT IS ENGINEERING?". COURSES: mathematics; computer science; engineering. ENROLLMENT: 25. GRADE(S): 11/12. QUALIFIERS: letters of recommendation; interest; grades. DURATION/DATES: 3 weeks (July). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/15. CONTACT: Michael Kupferman, and Richard Scranton, Northeastern University, 360 Huntington Avenue, Department of Civil Engineering, 443 Snell Building, Boston, MA 02115 (617/437-3900).

SUFFOLK UNIVERSITY AND THE MUSEUM OF SCIENCE AT BOSTON. MARINE SCIENCE FIELD EXPERIENCE. COURSES: marine sciences (biology; chemistry; geology; oceanography). ENROLLMENT: 30. GRADE(S): 9/10. QUALIFIERS: application processed at the Museum of Science in Boston. DURATION/DATES: 1 week (7/5-12). EST. COST: $380. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 5/1. CONTACT: Mr. Carl Merrill, Suffolk University, Biology Department, A-501, 41 Temple Street, Boston, MA 02114 (617/723-4700, ext. 246).

WESTERN NEW ENGLAND COLLEGE. YOUTH CHALLENGE. COURSES: physics; chemsitry; biology; mathematics; computer science; engineering. ENROLLMENT: 200. GRADE(S): 11/12. QUALIFIERS: recommendation by H.S. teacher; highly motivated students selected by faculty review. DURATION/DATES: 7/10-25; 7/26- 8/10. EST. COST: $550. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Prof. John Kwasnoski, Physics Department, Western New England College, 1215 Wilbraham Road, Springfield, MA 01119 (413/589-0793).

WORCESTER POLYTECHNIC INSTITUTE. FRONTIERS IN SCIENCE AND MATHEMATICS. RESEARCH/COURSES: physics; chemistry; biology; mathematics. ENROLLMENT: 68. GRADE(S): 12. QUALIFIERS: academically talented with a strong interest in science and mathematics; transcript; nomination from mathematics or science teacher. DURATION/DATES: 2 weeks (6/21-7/3). EST. COST: $650. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Thomas H. Keil, c/o Summer Session Office, 100 Institute Road, Worcester, MA 01609 (617/793- 5591).

MICHIGAN

COMMUTER

OAKLAND UNIVERSITY. HOWARD UNIVERSITY-ROCKEFELLER FOUNDATION (HUROC), MINORITY HIGH SCHOOL APPRENTICE PROGRAM. RESEARCH: biomedical sciences; plant sciences. ENROLLMENT: 2. GRADE(S): 11/12. QUALIFIERS: recommendation of counselors and science teachers; interview; consultation. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Egbert W. Henry, Department of Biological Sciences, Oakland University, Rochester, MI 48063 (313/370-3579).

OAKLAND UNIVERSITY. NATIONAL INSTITUTES OF HEALTH MINORITY HIGH SCHOOL APPRENTICE PROGRAM. RESEARCH: biological sciences (biomedical sciences and biochemistry). ENROLLMENT: 4. GRADE(S): 12. QUALIFIERS: recommendation; interview; consultation. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Egbert W. Henry, Department of Biological Sciences, Oakland University, Rochester, MI 48063 (313/370-3579).

UNIVERSITY OF MICHIGAN. SUMMER APPRENTICESHIP PROGRAM. RESEARCH: engineering. ENROLLMENT: 3-6. GRADE(S): 11/12. QUALIFIERS: academic achievement; interest in engineering; recommendations; minority students interested in engineering. DURATION/DATES: 8 weeks (June-August). EST. COST: none . SCHOLARSHIPS: n/a. APPLICATION DEADLINE: mid-May. CONTACT: Sharon R. Burch, College of Engineering, 1301 Beal, 2316 Electrical Engineering & Computer Science Building, Ann Arbor, MI 48109-2116 (313/764-6497).

UNIVERSITY OF MICHIGAN, DEARBORN. P.R.E.P.. RESEARCH/COURSES: mathematics; chemistry; communication arts; English. ENROLLMENT: 35. GRADE(S): 11. QUALIFIERS: specifically minority, however all will be considered. DURATION/DATES: 4 weeks (July). EST. COST: transportation and food. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Cammie Sleet, University of Michigan-Dearborn, 4901 Evergreen, Dearborn, MI 48128 (313/593- 5340).

WAYNE STATE UNIVERSITY. RESEARCH APPRENTICESHIP PROGRAM FOR MINORITY HIGH SCHOOL STUDENTS. RESEARCH: mechanical, electrical, computer and chemical engineering; chemistry. ENROLLMENT: 6-8. GRADE(S): 11/12. QUALIFIERS: GPA; mathematics and science courses; teacher recommendations; essay. DURATION/DATES: 6/22-8/21. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 6/5. CONTACT: Donny D. Smith, Manager of Special Programs, Wayne State University, Room 1100, 5050 Anthony Wayne Dr., Detroit, MI 48202 (313/577-3141).

COMMUTER/RESIDENTIAL

HOPE COLLEGE. SUMMER INSTITUTE IN COMPUTER SCIENCE. COURSES: computer science. ENROLLMENT: open. GRADE(S): open. QUALIFIERS: open enrollment. DURATION/DATES: 6 weeks (6/22-7/31). EST. COST: $340/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Herbert L. Dershem, Department of Computer Science, Hope College, Holland, MI 49423 (616/392-5111, ext.3002).

MICHIGAN STATE UNIVERSITY. HIGH SCHOOL HONORS SCIENCE PROGRAM. RESEARCH: experimental biology. ENROLLMENT: 24. GRADE(S): 11/12. QUALIFIERS: class rank; 3 years mathematics; 2 years science. DURATION/DATES: 7 weeks (6/24-8/8). EST. COST: $1400 (residents); $275 (commuters). SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/1. CONTACT: Dr. Charles R. Peebles, Department of Natural Science, 100 North Kedzie Laboratory, Michigan State University, East Lansing, MI 48824 (517/355-4600; 517/355-3782).

WESTERN MICHIGAN UNIVERSITY. HIGH TECHNOLOGY-APPLICATIONS AND IMPLICATIONS. COURSES: intedisciplinary; including fine arts; social and hard sciences; computer. ENROLLMENT: 150. GRADE(S): 11/12. QUALIFIERS: gifted and talented students; creative minds; intense participation. DURATION/DATES: 2 weeks (7/26-8/8). EST. COST: $125. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 1/5. CONTACT: Dr. James C. Petersen, Department of Sociology, 2415 Sangren Hall, Western Michigan University, Kalamazoo, MI 49008 (616/383-6127).

RESIDENTIAL

EASTERN MICHIGAN UNIVERSITY. SUMMER QUEST: EASTERN MICHIGAN UNIVERSITY'S SUMMER YOUTH PROGRAM. COURSES: technology and the future (interdisciplinary-sociology and technology). ENROLLMENT: 20. GRADE(S): 9/10/11. QUALIFIERS: enrolled in college prep curriculum; letter of recommendation from H.S. teacher or counselor. DURATION/DATES: 1 week (7/19- 25). EST. COST: $265 (includes room, board, tuition, social events). SCHOLARSHIPS: yes (limited need based grants). APPLICATION DEADLINE: 4/15. CONTACT: Neeta Delaney, Eastern Michigan University, One Goddard Hall, Ypsilanti, MI 48197 (313/487-0345).

GMI ENGINEERING & MANAGEMENT INSTITUTE. AIM (ACADEMICALLY INTERESTED MINORITIES) PROGRAM. COURSES: chemistry; communications; computer; mathematics; study skills. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: 2.8 GPA; 2 years algebra; 1 year geometry; 1 year chemistry; 2 years English. DURATION/DATES: 6 weeks (7/7-8/14). EST. COST: none. SCHOLARSHIPS: yes, two scholarships. APPLICATION DEADLINE: 3/31. CONTACT: Dr. David Green, Jr., 1700 West Third Avenue, Flint, MI 48502 (313/762- 7907; 800/572-9908 (Michigan); 800/521-7436 (national)).

GRAND VALLEY STATE COLLEGE. MICHIGAN STATE BOARD OF EDUCATION SUMMER INSTITUTES FOR THE ARTS AND SCIENCES. RESEARCH/COURSES: geology; archaeology; ecology; computers and science (also includes the arts: painting, photography, ceramics, and drawing). ENROLLMENT: 100. GRADE(S): 11/12. QUALIFIERS: high school nomination; screened by intermediate school district; selected by college and state officials. DURATION/DATES: 2 weeks (7/12- 25). EST. COST: $125. SCHOLARSHIPS: may be available from local, regional, and state agencies. APPLICATION DEADLINE: late February (varies with individual school district). CONTACT: Richard H. Lefebvre, Department of Geology, Grand Valley State College, Allendale, MI 49401 (616/895-3614). additional contact: Chris Kitzman, Washtenaw Intermediate School District, 1819 South Wagner Road, P.O. Box 1406, Ann Arbor, MI, 48106; 313/996-3203

HIRAM COLLEGE, HIAWATHA CAMPUS. ETHICAL ISSUES IN ENVIRONMENTAL BIOLOGY AND MEDICINE. RESEARCH/COURSES: biology; medicine. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: GPA; recommendation from teacher; science course background. DURATION/DATES: 8/16-22. EST. COST: $250. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Dennis James Taylor, Ph.D., Biology Dept., Hiram College, Hiram, OH 44234 (216/569-5264). Program takes place at the Northwoods Field Station in Michigan.

MICHIGAN TECHNOLOGICAL UNIVERSITY. MICHIGAN STATE BOARD OF EDUCATION SUMMER INSTITUTES FOR THE ARTS AND SCIENCES. COURSES: chemistry; physics (also includes creative and technical writing).

*Planned, but not definite

ENROLLMENT: 100. GRADE(S): 11/12. QUALIFIERS: high school nomination; screened by intermediate school district; selected by college and state officials. DURATION/DATES: 2 weeks (6/21-7/3). EST. COST: $125. SCHOLARSHIPS: may be available from local, state and regional agencies. APPLICATION DEADLINE: late February (varies with individual school district). CONTACT: Chris Anderson, Youth Program Office, 208 AOB, Michigan Technological University, Houghton, MI 49931 (906/487-2219). additional contact: Chris Kitzman, Washtenaw Intermediate School District, 1819 South Wagner Road, Ann Arbor, MI, 48106; 313/996-3203

UNIVERSITY OF MICHIGAN. SUMMER COLLEGE ENGINEERING EXPOSURE PROGRAM. COURSE: Exposure to engineering disciplines; lab tours; admissions and financial aid information; discussion sessions with engineers and researchers. ENROLLMENT: 25-30. GRADE(S): 12. QUALIFIERS: Academic courses completed; academic achievement; minority students interested in engineering. DURATION/DATES: 1 week. EST. COST: unknown. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Sharon R. Burch, 1301 Beal, 2316 Electrical Engineering & Computer Science Building, Ann Arbor, MI 48109 (313/764- 6497).

UNIVERSITY OF MICHIGAN. SUMMER ENRICHMENT PROGRAM. COURSES: algebra; engineering concepts; computers; technical communications. ENROLLMENT: 30. GRADE(S): 9/10. QUALIFIERS: Detroit area minority students with at least one year of algebra or pre-algebra; teacher recommendation; transcript. DURATION/DATES: 4 weeks (7/6-31). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: late May. CONTACT: Sharon R. Burch, 1301 Beal, 2316 Electrical Engineering & Computer Science Building, Ann Arbor, MI 48109-2116 (313/764-6497).

WESTERN MICHIGAN UNIVERSITY. MICHIGAN STATE BOARD OF EDUCATION SUMMER INSTITUTES FOR THE ARTS AND SCIENCES. RESEARCH/COURSES: mathematics (probability and statistics); biomedical technology; physics of music (also includes multi-media visual arts and ethics and technology). ENROLLMENT: 100. GRADE(S): 11/12. QUALIFIERS: high school nomination; screened by intermediate school district; selected by college and state officials. DURATION/DATES: 2 weeks (7/26-8/8). EST. COST: $125. SCHOLARSHIPS: may be available from local, state, regional agencies. APPLICATION DEADLINE: late February (varies with individual school district). CONTACT: James Peterson, Department of Sociology, Western Michigan University, Kalamazoo, MI 49008 (616/383-6127). additional contact: Chris Kitzman, Washtenaw Intermediate School District, 1819 South Wagner Road, Ann Arbor, MI, 48106; 313/996-3203

MINNESOTA

COMMUTER

AUGSBURG COLLEGE. SUMMER SESSION. COURSES: biology; chemistry; physics; mathematics; computer science. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: Augsburg's normal admissions criteria; prerequisites. DURATION/DATES: 1 4-week term (6/1-26); 1 6-week term (6/29-8/7). EST. COST: $370. SCHOLARSHIPS: none. APPLICATION DEADLINE: open. CONTACT: Pat Parker, Director of Summer Session, Augsburg College, 731 21st Avenue South, Minneapolis, MN 55401 (612/330-1025).

GUSTAVUS ADOLPHUS COLLEGE. GUSTAVUS SCIENCE PROGRAM FOR YOUTH. COURSES: selected topics appropriate for elementary children-life, physical, earth sciences. ENROLLMENT: 45/semester. GRADE(S): K-6. QUALIFIERS: open enrollment. DURATION/DATES: 6 weeks (Saturdays only: 3/7-4/11; 10/3-11/14). EST. COST: $10. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 2/28; 10/3. CONTACT: Dr. Ann Lydecker, Department of Education, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-7455).

MINNESOTA ZOO. ZOOSCHOOL: ANIMAL BEHAVIOR PROGRAM FOR GIFTED/TALENTED SENIOR HIGH SCHOOL STUDENTS. RESEARCH/COURSES: animal behavior; zoo biology; research methodology. ENROLLMENT: 10. GRADE(S): 10/11/12. QUALIFIERS: gifted/talented classification; biology course; GPA; test scores; class rank; recommendations; animal and research experience; motivation. DURATION/DATES: 15 weeks (6/1-8/31). EST. COST: $300. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/22. CONTACT: Steven R. Hage, Minnesota Zoo, Apple Valley, MN 55124 (612/432-9010).

COMMUTER/RESIDENTIAL

BETHEL COLLEGE. POST SECONDARY ENROLLMENT OPTIONS ACT. COURSES: the entire curriculum is open to students provided they meet the prerequisites of the courses. ENROLLMENT: unknown. GRADE(S): 12. QUALIFIERS: students must meet school's normal admissions entrance requirements. DURATION/DATES: 16 weeks (fall); 4 weeks (January); 16 weeks (spring). EST. COST: student pays for room and board. SCHOLARSHIPS: state/school pays tuition and books. APPLICATION DEADLINE: 8/1. CONTACT: Frank Smolinski, Bethel College, 3900 Bethel Drive, Arden Hills, MN 55112 (612/638-6242).

CARLETON COLLEGE. INTRODUCTION TO MATHEMATICAL AND SCIENTIFIC REASONING. COURSES: mathematics; biology; chemistry; physics; geology; astronomy. ENROLLMENT: 50. GRADE(S): 8-12. QUALIFIERS: 450+ on SAT; one course in algebra. DURATION/DATES: 7/13-16. EST. COST: $200. SCHOLARSHIPS: to Minnesota residents only. APPLICATION DEADLINE: 5/29. CONTACT: Dr. Clifford E. Clark, Jr., Summer Academic Programs, Carleton College, Northfield, MN 55057 (507/663-4301).

GUSTAVUS ADOLPHUS COLLEGE. A MODEL PROGRAM USING GUEST INSTRUCTORSHIPS AND WORKSHOPS FOR TEACHERS AND STUDENTS TO STRENGTHEN SECONDARY EDUCATION IN SCIENCE AND MATHEMATICS. COURSES: a series of workshops in each of four areas: life science; physical science; earth science; mathematics and computer science. ENROLLMENT: 32. GRADE(S): 11/12. QUALIFIERS: selected by home school and/or teacher that also will be attending the workshop. DURATION/DATES: academic year and summer (6/15-26). EST. COST: none. SCHOLARSHIPS: none. APPLICATION DEADLINE: not yet established. CONTACT: Myron Anderson, Department of Biology, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-2508).

GUSTAVUS ADOLPHUS COLLEGE. ACADEMIC SUMMER CAMPS-FIELD STUDIES IN NATURAL HISTORY. COURSES: biology. ENROLLMENT: 10. GRADE(S): 7-9. QUALIFIERS: students able to explore streams, woods, prairies. DURATION/DATES: 1 week (6/14-20). EST. COST: $125 (commuting); $250 (room, board, tuition). SCHOLARSHIPS: for Minnesota students through Minnesota Higher Education Coordinating Board. APPLICATION DEADLINE: 4/15. CONTACT: Judith A. Douglas, Director of Continuing Education, Box 1442, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-7665).

GUSTAVUS ADOLPHUS COLLEGE. ACADEMIC SUMMER CAMPS - THE COLORFUL SCIENCE - EXPLORATION AND MEASUREMENT OF CHEMICAL SYSTEMS WHICH ARE OFTEN BRILLIANTLY COLORED. COURSES: chemistry. ENROLLMENT: 10- 24. GRADE(S): 7-9. QUALIFIERS: students capable of using PH meters and spectrophometers and able to participate in field trips to collect materials. DURATION/DATES: 1 week (6/21-27). EST. COST: $125 (commuter); $250 (room, board, tuition). SCHOLARSHIPS: for Minnesota students through Minnesota Higher Education Coordinating Board. APPLICATION DEADLINE: 4/15. CONTACT: Judith A. Douglas, Director of Continuing Education, Box 1442, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-7665).

GUSTAVUS ADOLPHUS COLLEGE. ACADEMIC SUMMER CAMPS - DIGGING UP THE PAST. COURSES: archeology. ENROLLMENT: 10-24. GRADE(S): 7-9. QUALIFIERS: those able to collect and evaluate local natural resources and dig prehistoric Indian site. DURATION/DATES: 1 week (6/14-20). EST. COST: $125 (commuter); $250 (room, board, tuition). SCHOLARSHIPS: for Minnesota students through Minnesota Higher Education Coordinating Board. APPLICATION DEADLINE: 4/15. CONTACT: Judith A. Douglas, Director of Continuing Education, Box 1442, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-7665).

GUSTAVUS ADOLPHUS COLLEGE. ACADEMIC SUMMER CAMPS - GEOLOGY: FIELD STUDIES IN THE BLACK HILLS. COURSES: geology. ENROLLMENT: 10- 24. GRADE(S): 7-9. QUALIFIERS: students able to participate in extensive camping trip and complete 2 projects pertaining to methods of geologic investigation. DURATION/DATES: 1 and 1/2 weeks (6/21-7/1). EST. COST: $450. SCHOLARSHIPS: for Minnesota students through Minnesota Higher Education Coordinating Board. APPLICATION DEADLINE: 4/15. CONTACT: Judith Douglas, Director of Continuing Education, Gustavus Adolphus College, Box 1442, St. Peter, MN 56082 (507/931-7665).

RESIDENTIAL

GUSTAVUS ADOLPHUS COLLEGE. COMPUTERS: GRAPHICS, GAMES, AND PROGRAMMING. COURSES: computer science. ENROLLMENT: 17 (first year); 30- 45 (second year). GRADE(S): 8-12. QUALIFIERS: student interest. DURATION/DATES: 2 weeks (7/7-18). EST. COST: $550. SCHOLARSHIPS: through Minnesota Higher Education Coordination Board. APPLICATION DEADLINE: 7/1. CONTACT: John Holte, Department of Mathematics, Gustavus Adolphus College, St. Peter, MN 56082 (507/931-7465).

UNIVERSITY OF MINNESOTA, DULUTH. OPPORTUNITIES IN ENGINEERING. COURSES: engineering. ENROLLMENT: 25/session. GRADE(S): 11. QUALIFIERS: GPA; courses; letters of recommendation; applicant's statement; interest in science and engineering; extra-curricular activities. DURATION/DATES: 2 sessions; 7/12- 17; 7/19-24. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/1. CONTACT: Teri L. Williams, Continuing Education and Extension, 403 Darland Administration Building, University of Minnesota-Duluth, 10 University Drive, Duluth, MN 55812-2496 (218/726-8835).

UNIVERSITY OF MINNESOTA, MORRIS. GENETIC ALTERATION: TINKERING WITH NATURE. COURSES: biology, genetics; history; philosophy. ENROLLMENT: 25. GRADE(S): 12. QUALIFIERS: top 20% of class; recommendation of H.S. counselor or principal; essay. DURATION/DATES: 2 weeks (7/12-24). EST. COST: $145. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Thomas B. McRoberts, Continuing Education and Summer Session, 224 Community Services Building, University of Minnesota, Morris, Morris, MN 56267 (612/589-2211, ext. 6450).

MISSISSIPPI

COMMUTER/RESIDENTIAL

JACKSON STATE UNIVERSITY. HEALTH CAREERS TRAINING PROGRAM. COURSES: biology; general chemistry; computer science; basic mathematics; human anatomy; physiology. ENROLLMENT: 60 (30-fall; 30-summer). GRADE(S): 12. QUALIFIERS: students interested in health or biomedical profession; GPA of 2.5+; ACT of 15+; completed some science and mathematics courses; letter of recommendation. DURATION/DATES: 8 weeks (6/8-7/31). EST. COST: unknown. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Charles H. Spann, P.O. Box 17053, Jackson State University, Jackson, MS 39217 (601/968-2202; 601/968-2153).

JACKSON STATE UNIVERSITY. PRE-NURSING TRAINING PROGRAM. COURSES: biology; general chemistry; basic mathematics; introduction to nursing; human anatomy; physiology. ENROLLMENT: 40 (20-fall; 20-summer). GRADE(S): 12. QUALIFIERS: interested in nursing; GPA of 2.0 or above; completed H.S. science and mathematics; letter of recommendation. DURATION/DATES: 6 weeks (6/8- 7/10). EST. COST: unknown. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Charles H. Spann, P.O. Box 17053, Jackson State University, Jackson, MS 39217 (601/968-2202; 601/968-2513).

*Planned, but not definite

MISSISSIPPI STATE UNIVERSITY. SPECIAL PROGRAM FOR ACADEMICALLY TALENTED STUDENTS. RESEARCH/COURSES: biology; botany; chemistry; earth science; geology; geography; genetics; physics; zoology; mathematics. ENROLLMENT: 60. GRADE(S): 11/12. QUALIFIERS: 24 ACT composite or SAT/PSAT equivalency; H.S. letter of recommendation; permission of H.S. and parents; sound academic credentials. DURATION/DATES: academic year and summer (6/7-7/10; 7/12-8/17). EST. COST: $153-956, depending on number of courses; $125 for dorm room. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Jack H. White, Post Office Drawer EH, Mississippi State, MS 39762 (601/325-2522).

MISSISSIPPI STATE UNIVERSITY. SUMMER SCHOLARS SCIENCE CAMP. RESEARCH/COURSES: veterinary science; chemistry; physics. ENROLLMENT: 25. GRADE(S): 9-12. QUALIFIERS: IQ 120 or above; attending state approved gifted program. DURATION/DATES: 2 weeks (6/14-17). EST. COST: $375 (includes room and board). SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Joe Ray Underwood, Continuing Education, P.O. Drawer 5247, Mississippi State University, Mississippi State University, MS 39762 (601/325-3426; 601/325-3473).

MISSISSIPPI UNIVERSITY FOR WOMEN. PRE-COLLEGE ENRICHMENT PROGRAM (PEP). COURSES: biology; chemistry; mathematics; other disciplines. ENROLLMENT: 40-50. GRADE(S): 11/12. QUALIFIERS: minimun ACT score of 23 or SAT/PSAT equivalent. DURATION/DATES: 2 6-week terms (6/26-6/30; 7/1- 8/12). EST. COST: $356/room & board; $61.50/credit hour. SCHOLARSHIPS: some, but limited. APPLICATION DEADLINE: 5/25. CONTACT: Dr. Billy D. Pounds, Mississippi University for Women, Columbus, MS 39701 (601/329-4750 (in-state); 1- 800/247-0758 (out-of-state)).

MISSISSIPPI VALLEY STATE UNIVERSITY. PROJECT START - SCIENCE TUTORING AND RESEARCH TRAINING. RESEARCH/COURSES: astronomy; biology; chemistry; geology; physics; environmental science; English; mathematics; social sciences. ENROLLMENT: 10. GRADE(S): 12. QUALIFIERS: top 5% of class; interested in biomedical career; recommendation of H.S. science teacher. DURATION/DATES: 6 weeks (6/5-7/17). EST. COST: $8/day. SCHOLARSHIPS: 3 research apprenticeships at $150/week. APPLICATION DEADLINE: 4/3. CONTACT: Dr. J. Singh, Box 1240, Mississippi Valley State University, Itta Bena, MS 38941 (601/254-9041, ext. 6291; 800/821-2743, ext. 6291 (in-state toll free no.)).

RESIDENTIAL

UNIVERSITY OF SOUTHERN MISSISSIPPI. INVITATION TO MARINE DISCOVERY. RESEARCH/COURSES: marine science. ENROLLMENT: 60. GRADE(S): 7-12. QUALIFIERS: top 30% of class; recommendation by counselor or science teacher. DURATION/DATES: 1 week (6/28-7/3). EST. COST: $250. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/15. CONTACT: Larry Bellipanni, Southern Station Box 8298, University of Southern Mississippi, Hattiesburg, MS 39406 (601/266-4740).

MISSOURI

COMMUTER

***DRURY COLLEGE. SUMMER RESEARCH IN THERMODYNAMICS OF SOLUTIONS.** RESEARCH: chemistry. ENROLLMENT: 4-8. GRADE(S): 11/12. QUALIFIERS: two recommendation letters from science teachers; high GPA. DURATION/DATES: 8 weeks. EST. COST: no tuition fee; all expenses to be paid by students. SCHOLARSHIPS: none. APPLICATION DEADLINE: unknown. CONTACT: Dr. R. N. Roy, Chairman, Chemistry Dept., Drury College, Springfield, MO 65802 (417/865- 8731, ext. 247).

COMMUTER/RESIDENTIAL

THE SCHOOL OF THE OZARKS. MATHEMATICS SUMMER INSTITUTE. COURSES: non-traditional mathematics topics; microcomputer usage. ENROLLMENT: 12- 15/session. GRADE(S): 10/11/12. QUALIFIERS: aptitude and interest in learning more about problem solving strategies, microcomputers; new mathematics experience. DURATION/DATES: 1 week (June & August). EST. COST: $125 (resident); $50 (commuter). SCHOLARSHIPS: yes. APPLICATION DEADLINE: none, if space available. CONTACT: Dr. Larry Campbell, Department of Mathematics/Physics, The School of the Ozarks, Point Lookout, MO 65726 (417/334-6411, ext. 257).

RESIDENTIAL

NORTHEAST MISSOURI STATE UNIVERSITY. HIGH SCHOOL SUMMER RESEARCH PROGRAM. RESEARCH: all areas of science (agriculture; biology; chemistry; physics). ENROLLMENT: 4. GRADE(S): 12. QUALIFIERS: Missouri residents only; grades; letters of recommendation; sufficient background for project selected. DURATION/DATES: 10 weeks (6/8-8/7). EST. COST: none. SCHOLARSHIPS: $500 stipend; room,board, tuition paid. APPLICATION DEADLINE: 3/15. CONTACT: Dr. Russell G. Baughman, Division of Science, Northeast Missouri State University, Kirksville, MO 63501 (816/785-4627).

NORTHEAST MISSOURI STATE UNIVERSITY. JOHN R. KIRK HONORS INSTITUTE. COURSES: mathematics; biology. ENROLLMENT: 15/class. GRADE(S): 10/11/12. QUALIFIERS: 97th percentile on standardized tests; nomination by H.S. principal. DURATION/DATES: 4 weeks (6/13-7/11). EST. COST: $575. SCHOLARSHIPS: yes, limited number. APPLICATION DEADLINE: 2/28. CONTACT: Dr. Robert A. Dager, Head, Business Division, Northeast Missouri State University, Kirksville, MO 63501 (816/785-4346).

UNIVERSITY OF MISSOURI, ROLLA. JACKLING MINERAL INDUSTRIES SUMMER CAREERS INSTITUTE. COURSES: minerals and materials engineering. ENROLLMENT: 120. GRADE(S): 12. QUALIFIERS: scholarship; career interest in science or engineering. DURATION/DATES: 3 1-week sessions (June). EST. COST: $25. SCHOLARSHIPS: all. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Ronald A. Kohser, Department of Metallurgical Engineering, University of Missouri, Rolla, MO 65401-0249 (314/341-4734).

MONTANA

RESIDENTIAL

MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY (MONTANA TECH). ENGINEERING AND SCIENCE SUMMER PROGRAM FOR HIGH SCHOOL STUDENTS. COURSES: geology; geophysical engineering; petroleum engineering; mining engineering; metallurgical engineering; environmental engineering. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: 1 year chemistry and/or physics; 2 years algebra; recommendations. DURATION/DATES: 6 weeks (6/21-8/1). EST. COST: $1995. SCHOLARSHIPS: few. APPLICATION DEADLINE: 3/15. CONTACT: Nina A. Klein, Montana Tech, West Park St., Butte, MT 59701 (406/496-4126).

NEBRASKA

COMMUTER

UNIVERSITY OF NEBRASKA AT OMAHA. EARLY ENTRY. COURSES: chemistry; physics; biology; geology; mathematics; computer science. ENROLLMENT: 100. GRADE(S): 10/11/12. QUALIFIERS: teacher/counselor and parent permission. DURATION/DATES: academic year and summer. EST. COST: $220-$250/3-credit hour. SCHOLARSHIPS: yes (summer only). APPLICATION DEADLINE: 1 month prior to beginning of term. CONTACT: Dean Gordon Heining, and Marjorie Wikoff, Early Entry Program, University of Nebraska at Omaha, Omaha, NE 68182-0013 (402/554-2458).

RESIDENTIAL

UNIVERSITY OF NEBRASKA MEDICAL CENTER. SUMMER HEALTH PROFESSIONS WORKSHOP. RESEARCH/COURSES: various, including clinical and didactic areas. ENROLLMENT: 25/session. GRADE(S): 11/12. QUALIFIERS: demonstrated level of interest; aptitude and scholastic achievement. DURATION/DATES: 2 1-week sessions (7/6-11 & 7/13-18). EST. COST: $150. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/18. CONTACT: , Director of Academic Records, University of Nebraska Medical Center, 42nd & Dewey Avenue, Omaha, NE 68105 (402/559-6248).

NEW JERSEY

COMMUTER

COLLEGE OF SAINT ELIZABETH. THE ISOLATION AND CHARACTERIZATION OF NATURAL PRODUCTS—CHEMISTRY WORKSHOP FOR HIGH SCHOOL WOMEN. COURSES: chemistry. ENROLLMENT: 24. GRADE(S): 10/11/12. QUALIFIERS: essay; transcript; recommendation from science teacher. DURATION/DATES: 4 Saturdays (2/7; 2/14; 2/21; 2/28). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 12/15. CONTACT: Dr. Elena Colicelli, Department of Chemistry, College of Saint Elizabeth, Convent Station, NJ 07961 (201/539-1600, ext. 324).

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. See listing in Washington, D.C.

MONMOUTH COLLEGE. PROGRAM FOR THE ACCELERATION IN COMPUTER SCIENCE CAREERS (PAC) FOR MINORITY STUDENTS. COURSES: mathematics; computer science. ENROLLMENT: 60. GRADE(S): 5-8. QUALIFIERS: completion of application; mathematics test; recommendation from mathematics teacher. DURATION/DATES: academic year (2 10-week sessions). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 9/18. CONTACT: Ms. Venetia Gilmore, EOF Department, Monmouth College, West Long Branch, NJ 07764 (201/571- 3462).

MONTCLAIR STATE COLLEGE. THE ACADEMICALLY TALENTED YOUNG STUDENT PROGRAM (GIFTED YOUTH PROGRAM). COURSES: computer science; logic; oceanography; pre-calculus; number theory algebra; geometry; probability; chemistry; physics; simulated mocktrials; simulation games; etymology; creative writing; pompeii and others. ENROLLMENT: unlimited. GRADE(S): 7-10. QUALIFIERS: 97th percentile on standardized tests; SAT scores; I.Q.; screening identification by school district as "gifted". DURATION/DATES: academic year and summer (7/6-24). EST. COST: $200/semester (academic year); $525 (summer). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/12. CONTACT: Dr. Carl Gottschall, Montclair State College, Upper Monclair, NJ 07043 (201/893-4104).

NEW JERSEY INSTITUTE OF TECHNOLOGY. COMPUTER BASED PHYSICS. COURSES: use of computers to illustrate complex physical phenomena and the range of classical and modern physics; laboratory activities; physics; mathematics (calculus); computer programming. ENROLLMENT: 40. GRADE(S): 12. QUALIFIERS: top 20% of class; 3 years of mathematics and science; academic records; recommendations from science/math teachers and guidance counselors; PSAT/SAT scores. DURATION/DATES: 5 weeks (6/29-7/30). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Ben Stevenson, Physics Department, Attention: Mrs. Barbara Maranz, New Jersey Institute of Technology, Newark, NJ 07102 (201/596-3562).

RAMAPO COLLEGE OF NEW JERSEY. INCENTIVE PROGRAM IN SCIENCE AND COMPUTER SCIENCE FOR SELECTED HIGH SCHOOL STUDENTS. COURSES: chemistry; biology; biochemistry; physics; computer science; psychology. ENROLLMENT: 120. GRADE(S): 9-12. QUALIFIERS: student with high ability; program especially encourages women, minorities, handicapped students. DURATION/DATES: 2 5-Saturday class sessions (2/28-3/28; 4/11-5/30). EST. COST: none. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 12/8. CONTACT: Dr. Grace B. Borowitz, Professor of Chemistry, School of Theoretical and Applied Science, Ramapo College, 505 Ramapo Valley Road, Mahwah, NJ 07430 (201/529-7707; 201/529-7718).

*Planned, but not definite

UPSALA COLLEGE. UPSALA SCIENCE ENRICHMENT PROGRAM. COURSES: science; mathematics; computer science. ENROLLMENT: 60-75. GRADE(S): 9-12. QUALIFIERS: B or above avg. in science and mathematics courses. DURATION/DATES: academic year: biweekly; summer: six weeks (6/29-8/7). EST. COST: none. SCHOLARSHIPS: none (transportation stipend to commuters). APPLICATION DEADLINE: 5/15. CONTACT: Rosie A. Noble, Puden Hall, Room 104, Upsala College, East Orange, NJ 07019 (201/266-7163; if no answer call 201/781-0206 after 5 p.m.).

***WILLIAM PATERSON COLLEGE. PRE-COLLEGE ACADEMIC PROGRAM.** COURSES: precalculus; algebra; trigonometry; BASIC. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: unknown. DURATION/DATES: academic year (11/13-14; 12/29-30) and summer (7/28; 6/30-7/26). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/30. CONTACT: Dr. Eleanor Goldstein, Mathematics Dept., William Paterson College, Wayne, NJ 07470 (201/595-2159).

COMMUTER/RESIDENTIAL

***COOK COLLEGE AT RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY. DISCOVERY 87: A PRE-COLLEGE ACADEMIC ENRICHMENT AND APPRENTICESHIP PROGRAM.** RESEARCH/COURSES: agricultural and environmental sciences; chemistry; algebra/calculus. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: New Jersey residents only; top 50% of H.S. class; strong academic promise; recommendation of H.S. counselor/science coordinator; focus primarily on minorities and/or EOF eligibles. DURATION/DATES: 6 weeks. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Frazer Foster, Asst. Dean, Rutgers University, Cook College, P.O. Box 231, New Brunswick, NJ 08903 (201/932-9465).

STEVENS INSTITUTE OF TECHNOLOGY. EXPLORATION. COURSES: mathematics; computer science; engineering; science. ENROLLMENT: 30. GRADE(S): 8-10. QUALIFIERS: gifted students as determined by SAT scores or any other criteria. DURATION/DATES: 7/7-24 (Monday-Thursday). EST. COST: $150/week (commuting); $250/week (residential). SCHOLARSHIPS: based on need. APPLICATION DEADLINE: 6/15. CONTACT: Dr. Myron E. White, Stevens Institute of Technology, Hoboken, NJ 07030 (201/420-5434 or 420-5448).

STEVENS INSTITUTE OF TECHNOLOGY. MOVE AHEAD PROGRAM. COURSES: mathematics; physics; chemistry; computer science. ENROLLMENT: 80. GRADE(S): 11-12. QUALIFIERS: mature enough to do personalized self-paced instruction. DURATION/DATES: student selects 2-8 weeks; 6/22-8/13 (Monday-Thursday). EST. COST: $150/week (commuting); $250/week (residential). SCHOLARSHIPS: based on need. APPLICATION DEADLINE: rolling admissions. CONTACT: Dr. Myron E. White, Stevens Institute of Technology, Hoboken, NJ 07030 (201/420-5434 OR 420- 5448).

TRENTON STATE COLLEGE. THE SCIENCE CAMP. RESEARCH/COURSES: physics; chemistry; biology; geology; engineering; computer science. ENROLLMENT: 100. GRADE(S): 7-10. QUALIFIERS: top 5% of class; strong letters of recommendation from science teachers. DURATION/DATES: 2 weeks/session (7/6-31). EST. COST: $1200. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/12. CONTACT: Dr. Paul Cohen, The Science Camp, Trenton State College, CN 4700, Trenton, NJ 08650 (609/771-2255).

RESIDENTIAL

COLLEGE GIFTED PROGRAMS AT BLAIR ACADEMY, BLAIRSTOWN. THE SUMMER INSTITUTE FOR THE GIFTED AT BLAIR ACADEMY (IN COOPERATION WITH THOMAS A. EDISON STATE COLLEGE). COURSES: BASIC; PASCAL; biology; chemistry; physics; linear algebra; astronomy; logic; algebra; geometry; calculus; PSAT/SAT mathematics; pre-calculus; veterinary medicine; humanities; art; music; sports. ENROLLMENT: 250. GRADE(S): 4-11. QUALIFIERS: 95th percentile on standardized tests; SAT/PSAT scores; IQ; identification by school district as gifted; strong teacher recommendation. DURATION/DATES: 3 weeks (8/2-22). EST. COST: $1250. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Carl Gottschall, or Dr. Philip W. Zipse, College Gifted Programs, 544 Bloomfield Ave., Verona, NJ 07044 (201/857-2521). Also see College Gifted Programs at George School, Newtown, Pennsylvania.

DREW UNIVERSITY. STATE OF NEW JERSEY, GOVERNOR'S SCHOOL IN THE SCIENCES. RESEARCH/COURSES: computer science; chemistry; biology; mathematics; physics. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: H.S. nomination; county screening committee; final selection by Drew GSS selection committee. DURATION/DATES: 4 weeks (7/26-8/22). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 1/9. CONTACT: Dr. Robert L. Fenstermacher, Department of Physics, Drew University, Madison, NJ 07940 (201/377-3000, ext. 605).

STEVENS INSTITUTE OF TECHNOLOGY. 1987 STEVENS WOMEN IN ENGINEERING SUMMER PROGRAM. COURSES: laboratory experience in: civil, electrical, mechanical, biomedical, metallurgical, and chemical engineering; computer science. ENROLLMENT: 165 (approximately 41/week). GRADE(S): 10/11. QUALIFIERS: demonstrated ability and interest in mathematics and science; recommendation; PSAT scores. DURATION/DATES: 4 1-week sessions (6/14-19; 6/21-26; 7/5-10; 7/12-17). EST. COST: $200/week. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Susan S. Schwartz, Stevens Institute of Technology, Special Programs for Women, Hoboken, NJ 07030 (201/420-5245).

STEVENS INSTITUTE OF TECHNOLOGY. STEVENS TECHNICAL ENRICHMENT PROGRAM. COURSES: calculus; precalculus; physics; advanced physics; chemistry; advanced chemistry; computers; biology; advanced biology; algebra II, geometry; trigonometry; advanced trigonometry. ENROLLMENT: 160. GRADE(S): 9-12. QUALIFIERS: geographic area; income; grades; recommendations; in-house math diagnostic test. DURATION/DATES: 6/29-8/8. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Ed Prather, Stevens Institute of Technology, Hoboken, NJ 07030 (201/420-5204).

NEW MEXICO

RESIDENTIAL

***NEW MEXICO TECH. MINORITIES IN MINERAL ENGINEERING AND SCIENCE PROGRAM (MIMES).** COURSES: mathematics; chemistry; geology; mining. ENROLLMENT: 20. GRADE(S): 10/11. QUALIFIERS: Hispanic; Native American; Black; women. DURATION/DATES: 7/5-31. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/15. CONTACT: New Mexico Tech, Admissions Office, Socorro, NM 87801 (out-of-state 1-800/428-8324; in NM 505/835-5424 (collect); in Albuquerque 505/865-3351).

***NEW MEXICO TECH. NATIVE AMERICAN MINERAL ENGINEERING AND SCIENCE PROGRAM (NAMES).** COURSES: mathematics; chemistry; geology; mining. ENROLLMENT: 25. GRADE(S): 10/11. QUALIFIERS: Native American; application; 2 science/math teacher recommendations; transcript. DURATION/DATES: 7/5-31. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/15. CONTACT: Admissions Office, New Mexico Tech, Socorro, NM 87801 (out- of-state 1-800/428-8324; in NM 505/835-5424 (collect); in Albuquerque 505/865-3351).

***NEW MEXICO TECH. RESEARCH APPRENTICESPHIP PROGRAM (RAP).** RESEARCH/COURSES: chemistry; mining engineering; others. ENROLLMENT: 4. GRADE(S): 11. QUALIFIERS: Native American; application; 2 science/math teacher recommendations; transcript. DURATION/DATES: 6/14-8/7. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/15. CONTACT: Admissions Office, New Mexico Tech, Socorro, NM 87801 (out-of-state 1-800/428-8324; in New Mexico 505/835-5424 (collect); in Albuquerque 505/865-3351).

NEW MEXICO TECH. SCIENCE AND ENGINEERING RESEARCH APPRENTICESHIP (SERAPE). RESEARCH: astrophysics; geophysics; acid rain research in chemistry; paleontology. ENROLLMENT: 15. GRADE(S): 12. QUALIFIERS: attend school in Albuquerque Municipal School District; application; teacher references; interview. DURATION/DATES: 8 weeks (6/16-8/7). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 1/30. CONTACT: Admissions Office, New Mexico Tech, Campus Station, Socorro, NM 87801 (out-of-state: 1-800/428-8324; in New Mexico: 505/835-5424 (collect); in Albuquerque: 505/865-3353).

NEW MEXICO TECH. SUMMER MINI-COURSES. RESEARCH/COURSES: mathematics; computer science; geological and environmental engineering; life sciences (biology/psychology); materials and metallurgical engineering. ENROLLMENT: 20-25. GRADE(S): 11/12. QUALIFIERS: application; teacher references; transcripts. DURATION/DATES: 1 week/session. EST. COST: $70- 80/week. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 4/15. CONTACT: Office of Admissions, New Mexico Tech, Campus Station, Socorro, NM 87801 (out- of-state: 1-800/428-8324; in New Mexico: 505/835-5424 (collect); in Albuquerque: 505/865-3353).

***NEW MEXICO TECH. SUMMER SCIENCE TRAINING PROGRAM (SSTP).** RESEARCH/COURSES: atmospheric chemistry; physics. ENROLLMENT: 32/session. GRADE(S): 12. QUALIFIERS: application; teacher references; transcript. DURATION/DATES: 3 weeks/session (summer). EST. COST: $30/session. SCHOLARSHIPS: New Mexico residents. APPLICATION DEADLINE: 3/15. CONTACT: New Mexico Tech, Admissions Office, Socorro, NM 87801 (out-of-state 1-800/428-8324; in NM 505/835-5424 (collect); in Albuquerque 505/865-3351).

NEW YORK

COMMUTER

***ADELPHI UNIVERSITY. PROJECT CHEMISTRY.** RESEARCH/COURSES: chemistry. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: should have at least one of AP chemistry, biology or physics. DURATION/DATES: 6/6-8/10. EST. COST: $800. SCHOLARSHIPS: no. APPLICATION DEADLINE: 5/1. CONTACT: Prof. Joseph Landesberg, Dept. of Chemistry, Adelphi University, Garden City, NY 11530 (516/536-4808, ext. 7520).

BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK. HIGH SCHOOL ENRICHMENT PROGRAM. COURSES: biology; chemistry; computer science; geology; mathematics; physics. ENROLLMENT: 100. GRADE(S): 11/12. QUALIFIERS: 90 H.S. average; 1000 combined SAT or PSAT; recommendations. DURATION/DATES: academic year and summer (June-July). EST. COST: $31.35 Fee. SCHOLARSHIPS: none. APPLICATION DEADLINE: 12/1 (spring); 5/1 (summer); 5/30 (fall). CONTACT: Dr. Mary Oestereicher, Associate Dean, College of Liberal Arts and Sciences, Brooklyn College, Brooklyn, NY 11210 (718/780-5771).

BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK. SPECIAL HIGH SCHOOL ENRICHMENT PROGRAM. COURSES: biology; chemistry; computer science; geology; mathematics; physics. ENROLLMENT: 25. GRADE(S): 11/12. QUALIFIERS: H.S. grades; SAT or PSAT scores; recommendations of counselors and teachers. DURATION/DATES: academic year and summer (June-July). EST. COST: $31.35 Fee. SCHOLARSHIPS: none. APPLICATION DEADLINE: 12/1 (spring); 5/1 (summer); 5/30 (fall). CONTACT: Dr. Mary Oestereicher, Associate Dean, College of Liberal Arts and Sciences, Brooklyn College, Brooklyn, NY 11210 (718/780-5771).

CLARKSON SCHOOL. PROJECT CHALLENGE. COURSES: advertising; biology; chemistry; computers; engineering; psychology. ENROLLMENT: 140. GRADE(S): 10/11/12. QUALIFIERS: interest in science and mathematics. DURATION/DATES: 7-8 weeks (2/7-3/28). EST. COST: $115 (school district pays

*Planned, but not definite

for most). SCHOLARSHIPS: none. APPLICATION DEADLINE: 1/21. CONTACT: Gary F. Kelly, Headmaster, The Clarkson School, Holcroft House, Clarkson University, Potsdam, NY 13676 (315/268-4434).

COLUMBIA UNIVERSITY. SCIENCE HONORS PROGRAM. COURSES: physical, biological, and behavioral sciences; mathematics. ENROLLMENT: 300. GRADE(S): 11/12. QUALIFIERS: performance on specially administered examinations; test scores; GPA; H.S. recommendation; personal statement. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: March. CONTACT: Professor Allan M. Sachs, Box 43, Pupin Labs, Columbia University, New York, NY 10027 (212/280-3354).

HAMILTON COLLEGE. HIGH SCHOOL STUDENT PROGRAM. COURSES: physics; chemistry; biology; geology; mathematics; computer science. ENROLLMENT: 10. GRADE(S): 10/11/12. QUALIFIERS: H.S. transcript; recommendation from school and teacher. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 9/1. CONTACT: Douglas C. Thompson, Dean of Admissions, Hamilton College, Clinton, NY 13323 (315/859-4421).

HUNTER COLLEGE, CITY UNIVERSITY OF NEW YORK. HUNTER COLLEGE COURSES FOR QUALIFIED HIGH SCHOOL STUDENTS. COURSES: college level courses (no remediation) in biology; chemistry; computer science; geography; geology; mathematics; physics. ENROLLMENT: 50/semester. GRADE(S): 11/12. QUALIFIERS: highly motivated; H.S. students attending New York City public schools; students must have completed any prerequisite courses; strong recommendation from H.S. science teachers required. DURATION/DATES: 15 weeks/semester. EST. COST: $14.85 (student activity fee). SCHOLARSHIPS: regular college course tuition is waived for all those accepted. APPLICATION DEADLINE: 5/15 (fall); 11/1 (spring). CONTACT: Dean Richard C. Mawe, Division of Sciences and Mathematics, Room 312N, Hunter College, 695 Park Avenue, New York, NY 10021 (212/772-5240; 212/772-5241).

HUNTER COLLEGE, CITY UNIVERSITY OF NEW YORK. SCIENCE LABORATORY RESEARCH OPPORTUNITIES. RESEARCH: basic research in biology; chemistry; computer science; geology and geography; mathematics; physics. ENROLLMENT: 7- 10/semester. GRADE(S): 12. QUALIFIERS: students must have taken biology and chemistry (1 year each) in H.S.; physics and advanced biology and chemistry also preferred; strong recommendation from H.S. science teachers required. DURATION/DATES: 8-10 weeks (summer); 15-30 weeks (academic year). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: open. CONTACT: Dean Richard C. Mawe, Division of Sciences and Mathematics, Room 312N, Hunter College, 695 Park Avenue, New York, NY 10021 (212/772-5240; 212/772-5241).

JOHN JAY COLLEGE OF CRIMINAL JUSTICE (CUNY). ADVANCED STANDING FOR COLLEGE ENTRANTS (ASCENT) PROGRAM. COURSES: biology; physics; chemistry; pre-calculus; calculus; forensic science. ENROLLMENT: 225. GRADE(S): 11/12. QUALIFIERS: 80% H.S. average; 12th grade reading level; recommendation of guidance counselor. DURATION/DATES: academic year. EST. COST: $24.85. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 6/30 (fall); 1/1 (spring). CONTACT: Paul A. Wyatt, John Jay College of Criminal Justice, 445 W. 59 Street, New York, NY 10019 (212/489-3508).

LONG ISLAND UNIVERSITY, BROOKLYN CAMPUS. STUDENT SCIENCE TRAINING PROGRAM FOR HIGH ABILITY STUDENTS. RESEARCH: biology; chemistry; pharmacology; toxicology. ENROLLMENT: 12. GRADE(S): 11/12. QUALIFIERS: class rank; course background. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: $850 (commuter, credit); $600 (commuter, no credit). SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 4/1. CONTACT: Charles D. Duggan, Office of special Programs, C.W. Post Campus of Long Island University, Brookville, NY 11548 (516/299-2211).

MANHATTAN COLLEGE ROOSEVELT HIGH SCHOOL. HIGH SCHOOL ARTICULATION PROGRAM. COURSES: mathematics (college calculus). ENROLLMENT: 20-25. GRADE(S): 12. QUALIFIERS: self-selected, approved by H.S. faculty. DURATION/DATES: academic year. EST. COST: no cost to student; payment of $500/course is made to college by H.S.. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Dr. George L. McGeary, Assistant Dean, School of Arts and Sciences, Manhattan College, Riverdale, NY 10471 (212/920-0345).

NEW YORK ACADEMY OF SCIENCES. SCIENCE RESEARCH TRAINING PROGRAM (SRTP). RESEARCH: all sciences; mathematics; computers. ENROLLMENT: 20/county (New York and New Jersey). GRADE(S): 11/12. QUALIFIERS: B average; career orientation towards science/math; references; social maturity; some laboratory experience; interviews. DURATION/DATES: 6/29-8/6. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Beatrice A. Klier, New York Academy of Sciences, 2 East 63rd St., New York, NY 10021 (212/838-0230, ext. 229).

NEW YORK INSTITUTE OF TECHNOLOGY. NYIT/NASA—WESTINGHOUSE EARLY START PROGRAM. COURSES: pre-engineering programs which include mathematics; physics; computer science. ENROLLMENT: 120. GRADE(S): 9-12. QUALIFIERS: selected by school districts as best science/matter students in class. DURATION/DATES: academic year and summer (July-September). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Ms. Aruna Venkataraman, New York Institute of Technology, Office of Research & Evaluation, Old Westbury, NY 11568 (516/686-7723).

NORTHEAST RESOURCE CENTER FOR SCIENCE AND ENGINEERING AT CITY COLLEGE. SUMMER SCIENCE ACADEMY. COURSES: mathematics; computing; analytical reasoning; physics; psychology; lab techniques. ENROLLMENT: 80. GRADE(S): 11. QUALIFIERS: minority or low income student; B average or better. DURATION/DATES: 4 weeks (6/29-7/24). EST. COST: none. SCHOLARSHIPS: living expense stipends of $300. APPLICATION DEADLINE: 4/15. CONTACT: R.M. Lea, Resource Center for Science and Engineering, City College, New York, NY 10031 (212/690-8300).

PACE UNIVERSITY, DYSON COLLEGE OF ARTS & SCIENCES, PLEASANTVILLE/BRIARCLIFF CAMPUS. HIGH SCHOOL HONORS PROGRAM IN THE HEALTH SCIENCES. RESEARCH/COURSES: biology; nutrition; physiology; pharmacology. ENROLLMENT: 25. GRADE(S): 11/12. QUALIFIERS: GPA; recommendations from H.S. science teacher. DURATION/DATES: academic year. EST. COST: $100. SCHOLARSHIPS: none. APPLICATION DEADLINE: 9/15. CONTACT: Dr. William P. Ventura, Pace University, Bedford Road, Pleasantville, NY 10570 (914/993-3343).

***ROBERTS WESLEYAN COLLEGE. HIGH SCHOOL RESEARCH INTERFACE.** RESEARCH: biochemistry; molecular biology; analysis of gyrose and topoisomerase genes; function and regulation. ENROLLMENT: 3-4. GRADE(S): 11/12. QUALIFIERS: chemistry course completed. DURATION/DATES: 6/22-26. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/1. CONTACT: David E. Roll, Roberts Wesleyan College, 2301 Westside Dr., Rochester, NY 14624 (716/594-9471, ext. 138).

SAINT JOHN'S UNIVERSITY. SUMMER SCHOLARS PROGRAM. COURSES: non- laboratory physical and natural sciences; mathematics; environmental studies; computer science; non-science courses. ENROLLMENT: 30/year. GRADE(S): 12. QUALIFIERS: acceptable grades; acceptable SAT/ACT scores; necessary pre- requisites; permission; recommendation. DURATION/DATES: 6 weeks (7/6-8/6). EST. COST: $100/course; $10 registration fee; $10 application fee. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/19. CONTACT: Marguerite M. Bagarozzi, Assistant to the Academic Vice President and Director, Special University Programs, St. John's University, Grand Central and Utopia Parkways, Jamaica, NY 11439 (718/990-6565)

STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION. BIO 184: INTRODUCTION TO AQUATIC BIOLOGY. COURSES: environmental biology; aquatic sciences. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: nomination by teacher; interviews; matching of faculty member and student interest. DURATION/DATES: 3 weeks. EST. COST: $35-120. SCHOLARSHIPS: yes (very restricted). APPLICATION DEADLINE: variable. CONTACT: Dr. Willard Harman, Chairman, Department of Biology, State University College, Oneonta, NY 13820 (607/431-3421).

STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION. BIO 188: INTRODUCTION TO ECOLOGY AND FIELD BIOLOGY. COURSES: environmental biology; aquatic sciences. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: nomination by teacher; interviews; matching of faculty member and student interest. DURATION/DATES: 3 weeks. EST. COST: $35-120. SCHOLARSHIPS: yes (very restricted). APPLICATION DEADLINE: variable. CONTACT: Dr. Willard Harman, Chairman, Department of Biology, State University College, Oneonta, NY 13820 (607/431-3421).

STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION. BIO 199: INDEPENDENT STUDY IN BIOLOGY. RESEARCH/COURSES: environmental biology; aquatic sciences. ENROLLMENT: 1-2. GRADE(S): 11/12. QUALIFIERS: nomination by teacher; interviews; matching of faculty member and student interest. DURATION/DATES: variable. EST. COST: $35-120. SCHOLARSHIPS: yes (very restricted). APPLICATION DEADLINE: variable. CONTACT: Dr. Willard Harman, Chairman, Department of Biology, State University College, Oneonta, NY 13820 (607/431-3421).

STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION. F.H.V. MECKLENBURG CONSERVATION FELLOWSHIP. RESEARCH: environmental biology; aquatic sciences. ENROLLMENT: 1-2. GRADE(S): 11/12. QUALIFIERS: nomination by teacher; interviews; matching of faculty member and student interest. DURATION/DATES: 8 weeks. EST. COST: $35-120. SCHOLARSHIPS: yes (very restricted). APPLICATION DEADLINE: variable. CONTACT: Dr. Willard Harman, Chairman, Department of Biology, State University College, Oneonta, NY 13820 (607/431-3421).

STATE UNIVERSITY COLLEGE, BIOLOGICAL FIELD STATION. NY ACADEMY OF SCIENCE HIGH SCHOOL INTERNSHIPS. RESEARCH: environmental biology; aquatic sciences. ENROLLMENT: 1-2. GRADE(S): 11/12. QUALIFIERS: nomination by teacher; interviews; matching of faculty member and student interest. DURATION/DATES: 6 weeks. EST. COST: $35-120. SCHOLARSHIPS: yes (very restricted). APPLICATION DEADLINE: variable. CONTACT: Dr. Willard Harman, Chairman, Department of Biology, State University College, Oneonta, NY 13820 (607/431-3421).

STATE UNIVERSITY OF NEW YORK AT BUFFALO. GIFTED MATH PROGRAM. COURSES: mathematics (an integrated program of enriched school and college content generating up to 22 university credits). ENROLLMENT: 230. GRADE(S): 6-12. QUALIFIERS: school or parent nomination; testing; interviews. DURATION/DATES: academic year (9/7-6/10). EST. COST: $150/semester. SCHOLARSHIPS: fees waived on request. APPLICATION DEADLINE: 3/15. CONTACT: Gerald R. Rising, and Betty J. Krist, Co-directors, Baldy 560, State University of New York, Buffalo, NY 14260 (716/636-3175).

STATE UNIVERSITY OF NEW YORK AT OSWEGO. PROGRAM FOR HIGH SCHOOL SENIORS. COURSES: calculus; others planned. ENROLLMENT: unknown. GRADE(S): 12. QUALIFIERS: recommendation of H.S. teachers. DURATION/DATES: academic year. EST. COST: unknown. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: unknown. CONTACT: Linda A. Syrell, Acting Associate Dean of Arts and Science, 601 Culkin, State University of New York at Oswego, Oswego, NY 13126 (315/341-2156).

STATE UNIVERSITY OF NEW YORK AT PLATTSBURGH. EARLY COLLEGE PROGRAM. COURSES: biological sciences; chemistry; earth and environmental sciences; physics. ENROLLMENT: 50. GRADE(S): 10/11/12. QUALIFIERS: GPA; recommendation. DURATION/DATES: academic year. EST. COST: $135/3-credit course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 1 month prior to each semester. CONTACT: Bette S. Brohel, Coordinator of Adult Learning Services, Hawkins Hall 106, SUNY Plattsburgh, Plattsburgh, NY 12901 (518/564-2050).

*Planned, but not definite

***STATE UNIVERSITY OF NEW YORK AT STONY BROOK. SIMONS FELLOWSHIP PROGRAM.** RESEARCH: complete range of sciences including behavioral and medical. ENROLLMENT: 10-15. GRADE(S): 12. QUALIFIERS: academic achievement and demonstrated science/research ability; nomination/spon-sorship by high school. DURATION/DATES: 7/1-8/28. EST. COST: transportation and meals. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/1. CONTACT: Dr. Laurie Johnson, Undergraduate Studies, Library E3320, State University of New York, Stony Brook, NY 11794 (516/632-7080).

***STATE UNIVERSITY OF NEW YORK, THE COLLEGE AT NEW PALTZ. SUMMER SCIENCE INSTITUTE.** COURSES: biology; chemistry; physics; computer science. ENROLLMENT: 15-20. GRADE(S): 9-12. QUALIFIERS: H.S. GPA 90 and above; outstanding performance on standardized tests; excellence in English and mathematics; involvement in extracurricular activities; letters of recommendation. DURATION/DATES: 7/6-24. EST. COST: $100. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/15. CONTACT: Prof. Arnold Nemerofsky, Chair, Dept. of Biology, State University of New York, the College at New Paltz, New Paltz, NY 12561 (914/257-2552).

STATE UNIVERSITY OF NEW YORK COLLEGE AT BROCKPORT. 3-1-3. COURSES: biology; chemistry; physics; earth science; geology; mathematics; computer science. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: must meet college admission's standards. DURATION/DATES: academic year. EST. COST: $600-900. SCHOLARSHIPS: few, if any. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Thomas P. Bonner, Dean, Division of General Education, SUNY College at Brockport, Brockport, NY 14420 (716/395-2291).

SUFFOLK COUNTY COMMUNITY COLLEGE. SCIENCE & TECHNOLOGY ENTRY PROGRAM (STEP). COURSES: algebra; problem solving; general biology; human biology; physics; technology. ENROLLMENT: 240. GRADE(S): 7/8/9. QUALIFIERS: under-represented minority or economically disadvantaged; motivation; GPA; school recommendation. DURATION/DATES: 6 weeks/semester (1/31-5/2). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: December. CONTACT: Dorothy Patrick, and Nina Leonhardt, Suffolk County Community College, 533 College Road, Selden, NY 11784 (516/451-4358; 516/451-4249).

SYRACUSE UNIVERSITY. PROJECT ADVANCE. COURSES: biology; chemistry; calculus; computer science. ENROLLMENT: 600. GRADE(S): 12. QUALIFIERS: successful completion of 11th grade H.S. curriculum; H.S. recommendation. DURATION/DATES: academic year. EST. COST: $36/credit hour. SCHOLARSHIPS: yes, for needy students. APPLICATION DEADLINE: September. CONTACT: Franklin Wilbur, 111 Waverly Avenue, Syracuse, NY 13244 (315/423-2404).

THE CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK. BRIDGE TO MEDICINE. RESEARCH/COURSES: chemistry; pre-calculus; calculus; English. ENROLLMENT: 75+. GRADE(S): 12. QUALIFIERS: 85 or better GPA; 80-90 GPA in biology, chemistry, 3rd year mathematics; top 10% of class. DURATION/DATES: academic year and summer. EST. COST: none. SCHOLARSHIPS: small stipend and car fare. APPLICATION DEADLINE: 3/31. CONTACT: Ms. Jocelyn Jerome, and Dr. Mortonslater, Admissions, City College, 138th St. & Convent Ave., New York, NY 10031 (212/690-8256/57; 212/690-8183).

THE CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK. SELECT PROGRAM IN SCIENCE AND ENGINEERING (SPISE). COURSES: mathematics; physics; chemistry; meteorology; chemical engineering; mechanical engineering; electrical engineering; civil engineering. ENROLLMENT: 480. GRADE(S): 10. QUALIFIERS: proper grade level in mathematics; no role model at home; low income; teacher recommendation. DURATION/DATES: 10 weeks/semester (9/20- 5/16). EST. COST: no cost. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 9/15 and 2/15. CONTACT: Professor Alfred S. Posamentier, and Professor Demos Eitzer, The City College, Convent Avenue at 138th Street, New York, NY 10031 (212/690-5471).

UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK. SPECIAL PROGRAM FOR QUALIFIED HIGH SCHOOL STUDENTS. COURSES: biology; chemistry; physics; atmospheric science (meteorology); geology; math; computer science. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: GPA; recommendations; science grades; standardized tests. DURATION/DATES: academic year; 15 weeks/semester. EST. COST: $45/credit. SCHOLARSHIPS: none. APPLICATION DEADLINE: 8/1 (fall); 12/1 (spring). CONTACT: R. Thomas Flemming, Associate Director of Admissions, University at Albany, State University of New York, 1400 Washington Avenue, Albany, NY 12222 (518/442-5435).

COMMUTER/RESIDENTIAL

CLARKSON UNIVERSITY. THE CLARKSON SCHOOL. COURSES: various. ENROLLMENT: 52. GRADE(S): 12. QUALIFIERS: upper 10% of H.S. class; transcript; 2 recommendations; PSAT/SAT scores; campus visit. DURATION/DATES: academic year. EST. COST: $12,990. SCHOLARSHIPS: full range available. APPLICATION DEADLINE: late spring. CONTACT: Gary F. Kelly, Headmaster, Holcroft House, The Clarkson School, Clarkson University, Potsdam, NY 13676 (315/268-4434).

LONG ISLAND UNIVERSITY, C.W. POST CAMPUS. STUDENT SCIENCE TRAINING PROGRAM FOR HIGH ABILITY STUDENTS. RESEARCH: biology; geology; physics; psychology. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: class rank; course background. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: $1890 (room, board, credit); $1640 (room, board, no credit); $850 (commuter, credit); $600 (commuter, no credit). SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 4/1. CONTACT: Charles D. Duggan, Office of Special Programs, C.W. Post Campus of Long Island University, Brookville, NY 11548 (516/299-2211).

LONG ISLAND UNIVERSITY, C.W. POST CAMPUS. STUDENT SCIENCE TRAINING PROGRAM FOR HIGH ABILITY STUDENTS. RESEARCH: mathematics. ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: class rank; course background. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: $1420 (room, board, credit); $1230 (room, board, no credit); $640 (commuter, credit); $450 (commuter, no credit). SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 4/1. CONTACT: Charles D. Duggan, Office of Special Programs, C.W. Post Campus of Long Island University, Brookville, NY 11548 (516/299-2211).

MANHATTAN COLLEGE. HIGH SCHOOL ENGINEERING INSTITUTE. COURSES: mathematics; engineering; computer graphics. ENROLLMENT: 40. GRADE(S): 10/11. QUALIFIERS: college preparatory program in H.S.. DURATION/DATES: 1 week (summer). EST. COST: $165. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/15. CONTACT: Dr. Walter Saukin, Department of Civil Engineering, Manhattan College, Riverdale, NY 10471 (212/920-0255).

MANHATTAN COLLEGE. PRE-ENGINEERING COMPREHENSIVE ACHIEVEMENT PROGRAM (PRE-CAP). COURSES: mathematics (algebra, geometry, trigonometry); and chemistry-assistance to H.S.students. ENROLLMENT: 338. GRADE(S): 10/11. QUALIFIERS: students are selected by H.S. faculty. DURATION/DATES: academic year; 4 week summer program. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Ismael Diaz, School of Engineering, Manhattan College, Riverdale, NY 10471 (212/920-0281).

***MARIST COLLEGE. COMPUTER CAMP.** COURSES: computer science. ENROLLMENT: 60. GRADE(S): 2-12. QUALIFIERS: none. DURATION/DATES: 6/28-7/11; 7/12-25; 7/26-8/8. EST. COST: $950 (residential); $525 (commuting). SCHOLARSHIPS: yes. APPLICATION DEADLINE: open. CONTACT: Dr. Lawrence W. Menapace, Marist College, Poughkeepsie, NY 12601 (914/471-3240).

PACE UNIVERSITY, DYSON COLLEGE OF ARTS & SCIENCES. BIOCHEMISTRY AND PHYSIOLOGY OF MICROORGANISMS. RESEARCH/COURSES: chemistry; biochemistry; biological sciences. ENROLLMENT: 12. GRADE(S): 11/12. QUALIFIERS: GPA; SAT scores; recommendations. DURATION/DATES: 8 weeks (July-August). EST. COST: $800. SCHOLARSHIPS: depends on grants. APPLICATION DEADLINE: March. CONTACT: Dr. Dudley Cox, Pace University, 1 Pace Plaza, New York, NY 10038 (212/488-1504).

PRATT INSTITUTE. PRE-COLLEGE ENGINEERING PROGRAM (6 CREDITS). COURSES: calculus; physics. ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: interest in engineering; guidance counselor recommendation; an 85 average. DURATION/DATES: 6 weeks (7/11-8/19). EST. COST: 1/2 price tuition. SCHOLARSHIPS: yes. APPLICATION DEADLINE: before term. CONTACT: Judith Glass, 200 Willoughby Avenue, Brooklyn, NY 11205 (718/636-3453).

PRATT INSTITUTE. PRE-COLLEGE INTRODUCTION TO ENGINEERING PROGRAM. COURSES: engineering. ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: interest in engineering; guidance counselor recommendation. DURATION/DATES: 2 weeks (7/7-20). EST. COST: $275. SCHOLARSHIPS: yes. APPLICATION DEADLINE: before term. CONTACT: Judith Glass, 200 Willoughby Avenue, Brooklyn, NY 11205 (718/636-3453).

ROSWELL PARK MEMORIAL INSTITUTE. SUMMER RESEARCH PARTICIPATION PROGRAM IN SCIENCE. RESEARCH/COURSES: basic cancer research; utilizing techniques in biochemistry; cellular-molecular biology; immunology; biophysics; pharmacology; chemistry; physiology. ENROLLMENT: 36. GRADE(S): 12. QUALIFIERS: GPA; letter of recommendation; commitment to a research career. DURATION/DATES: 6/22-8/14. EST. COST: $900. SCHOLARSHIPS: 3 minority H.S. fellowships. APPLICATION DEADLINE: 3/13. CONTACT: Dr. Edwin A. Mirand, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, NY 14263 (716/845-2339).

SAINT BONAVENTURE UNIVERSITY. GIANT STEP. COURSES: mathematics; computer science; physics; chemistry; biology. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: H.S. performance; letters of recommendation. DURATION/DATES: academic year and summer. EST. COST: $450/course. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 2 weeks before course. CONTACT: Ms. Carol Wittmeyer, Registrar, St. Bonaventure University, St. Bonaventure, NY 14778 (716/375-2020).

SIENA COLLEGE. FUTURES IN COMPUTING. COURSES: computer science. ENROLLMENT: 70. GRADE(S): 11. QUALIFIERS: 1 semester of H.S. computing course. DURATION/DATES: 3 days (6/29-7/1). EST. COST: $105 (commuter); $155 (residential). SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/15. CONTACT: Edward M. Crosson, Computer Science Department, Siena College, Loudonville, NY 12211 (518/783-2440).

UNION COLLEGE. THE COLLEGE EXPERIENCE. COURSES: computer science; electrical engineering; mechanical engineering; civil engineering; astronomy; calculus; biology. ENROLLMENT: 80. GRADE(S): 11/12. QUALIFIERS: evidence of high achievement and academic promise; maturity; transcript; SAT/PSAT scores; essay; recommendation. DURATION/DATES: 6 weeks (6/21-7/31). EST. COST: $2050 (room, board, tuition); $1130 (commuting). SCHOLARSHIPS: based on exceptional need; minority. APPLICATION DEADLINE: 5/22. CONTACT: Dr. Joan Krejci, Associate Dean, Union College, Graduate and Continuing Studies, Wells House, 1 Union Avenue, Schenectady, NY 12308 (518/370-6641).

UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK. SPECIAL PROGRAM FOR QUALIFIED HIGH SCHOOL STUDENTS. COURSES: biology; chemistry; physics; atmospheric science (meteorology); geology; math; computer science. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: GPA; recommendations; standardized test scores; science grades. DURATION/DATES: 6/20-8/8. EST. COST: $45/credit. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: R. Thomas Flemming, Associate Director of Admissions, University at Albany, State University of New York, 1400 Washington Avenue, Albany, NY 12222 (518/442-5431).

UNIVERSITY CENTER AT BINGHAMTON. INTERDISCIPLINARY SCIENCE RESEARCH PROGRAM. RESEARCH: archaeology; biology; chemistry;

*Planned, but not definite

mathematics; physics; psychology. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: evidence of academic accomplishment; evidence of personal characteristics that will contribute to a research group; evidence of motivation; discipline, and purpose required for success at the the college level. DURATION/DATES: 4 weeks (7/5- 31). EST. COST: $640 (resident); $890 (out-of-state). SCHOLARSHIPS: for qualified students. APPLICATION DEADLINE: 4/15/87. CONTACT: Coordinator of ISRP, Office of the Summer Sessions, University Center at Binghamton, Binghamton, NY 13901 (607/798-2161).

UNIVERSITY CENTER AT BINGHAMTON. SCIENCE AND TECHNOLOGY ENTRY PROGRAM. RESEARCH/COURSES: biology; biochemistry; chemistry; physics; engineering technology. ENROLLMENT: 48. GRADE(S): 10/11. QUALIFIERS: qualified minority or economically disadvantaged; able and ambitious; upper 20% of class. DURATION/DATES: 3 weeks (7/12-31). EST. COST: none. SCHOLARSHIPS: total scholarship to qualified NY students. APPLICATION DEADLINE: 4/15. CONTACT: Coordinator STEP Program, Office of the Summer Sessions, University Center at Binghamton, Binghamton, NY 13901 (607/798-2161).

RESIDENTIAL

ALFRED UNIVERSITY, NYS COLLEGE OF CERAMICS. 12TH ANNUAL SUMMER INSTITUTE IN SCIENCE AND ENGINEERING FOR HIGH SCHOOL JUNIORS. COURSES: engineering; chemistry; physics; biology; ceramics. ENROLLMENT: 80- 120. GRADE(S): 12. QUALIFIERS: class rank; recommendations from teachers. DURATION/DATES: 1 week (6/22-26). EST. COST: $240 (complete with room and board). SCHOLARSHIPS: yes, full and partial. APPLICATION DEADLINE: 5/30. CONTACT: Professor W.A. Earl, NYS College of Ceramics, Alfred University, Alfred, NY 14802 (607/871-2462).

CLARKSON SCHOOL/CLARKSON UNIVERSITY. SCOPES—SUMMER COLLEGE ORIENTATION PROGRAM IN ENGINEERING AND SCIENCE. RESEARCH/COURSES: science; mathematics; engineering; business. ENROLLMENT: 150. GRADE(S): 12. QUALIFIERS: PSAT scores; career interest; application. DURATION/DATES: 1 week (6/28-7/5). EST. COST: $250. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Richard T. Watkins, The Clarkson School, Holcroft House, Potsdam, NY 13676 (315/268-4425).

LONG ISLAND UNIVERSITY, SOUTHAMPTON CAMPUS. STUDENT SCIENCE TRAINING PROGRAM FOR HIGH ABILITY STUDENTS. RESEARCH: marine biology; marine chemistry. ENROLLMENT: 12. GRADE(S): 11/12. QUALIFIERS: class rank; course background. DURATION/DATES: 8 weeks (6/22-8/14). EST. COST: $1890 (room, board, credit); $1640 (room, board, no credit). SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 4/1. CONTACT: Charles D. Duggan, Office of Special Programs, C.W. Post Campus of Long Island University, Brookville, NY 11548 (516/299-2211).

NATIONAL CENTER FOR EXCELLENCE IN EDUCATION. MATHEMATICS, SCIENCE, AND COMPUTER SCIENCE SUMMER INSTITUTE. RESEARCH/COURSES: advanced mathematics; physics; computer science. ENROLLMENT: 125. GRADE(S): 9-12. QUALIFIERS: SAT or PSAT; school grades; recommendation by math or science teacher. DURATION/DATES: 6/28-7/25. EST. COST: $2,000. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Edward D. Lozansky, 3001 Veazey Terrace, NW, Washington, DC 20008 (202/364-0200). Program will be held on the Long Island University campus in Southampton, Long Island, NY

SOUTHAMPTON COLLEGE OF LONG ISLAND UNIVERSITY. INTRODUCTION TO THE MARINE ENVIRONMENT. COURSES: marine science. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: combined SAT of 950; H.S. GPA of 80%. DURATION/DATES: 3 1-week sessions (6/28-7/3; 8/2-7; 8/9-14). EST. COST: $200. SCHOLARSHIPS: 2/session. APPLICATION DEADLINE: 5/30. CONTACT: Brian Carroll, Admissions Office, Southampton College, Southampton, NY 11968 (516/283- 4000, ext. 120).

STATE UNIVERSITY COLLEGE AT BUFFALO. SUMMER INTERN PROGRAM FOR HIGH SCHOOL JUNIORS. RESEARCH: chemistry; biology; geoscience; math; social sciences. ENROLLMENT: 15. GRADE(S): 11. QUALIFIERS: honor students; nominated by H.S. teachers or counselors. DURATION/DATES: 6 weeks (7/1-8/15). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/1. CONTACT: Vern L. Bullough, Dean, Faculty of Natural and Social Sciences, State University College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222 (716/878- 6434).

STATE UNIVERSITY OF NEW YORK HEALTH SCIENCE CENTER AT SYRACUSE. HIGH SCHOOL STUDENT RESEARCH APPRENTICE PROGRAM. RESEARCH: biology; chemistry; algebra. ENROLLMENT: 6. GRADE(S): 11/12. QUALIFIERS: academic record; letters of recommendation; interview; interest in science. DURATION/DATES: 8 weeks (7/1-8/30). EST. COST: none. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/15. CONTACT: Dr. N. Barry Berg, State University of New York Health Science Center at Syracuse, 766 Irving Avenue, Room 2257, Syracuse, NY 13210 (315/473-4348).

UNITED STATES MILITARY ACADEMY. INVITATIONAL ACADEMIC WORKSHOP. RESEARCH/COURSES: mathematics; sciences; engineering. ENROLLMENT: 400. GRADE(S): 12. QUALIFIERS: PSAT; grades; activities; recommendations. DURATION/DATES: 1 week (6/21-26). EST. COST: $75. SCHOLARSHIPS: yes for minorities. APPLICATION DEADLINE: 4/30. CONTACT: Mr. John Barbieri, Office of Admissions, United States Military Academy, West Point, NY 10996 (914/938- 4041).

NORTH CAROLINA

COMMUTER

FAYETTEVILLE STATE UNIVERSITY. INTENSIVE STUDIES PROGRAM. COURSES: science; mathematics; language arts. ENROLLMENT: 50. GRADE(S): 12. QUALIFIERS: none. DURATION/DATES: 6 weeks (July-August). EST. COST: $520. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/26. CONTACT: Mr. Willie Beasley, Fayetteville State University, Continuing Education Center, Fayetteville, NC 28301 (919/486-1225).

NORTH CAROLINA WESLEYAN COLLEGE. SCIENTIFIC SUMMER. COURSES: science; computer studies; mathematics. ENROLLMENT: 24. GRADE(S): ages 9-11 and 11-14. QUALIFIERS: recommendation by science or math teacher. DURATION/DATES: 1 week (July). EST. COST: $100. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Marshall Brooks, Dean, North Carolina Wesleyan College, Rocky Mount, NC 27801 (919/977-7171).

WINGATE COLLEGE. SAM (SUMMER ACHIEVEMENT MODULE). COURSES: computers; science lab experience. ENROLLMENT: 90. GRADE(S): 1-10. QUALIFIERS: interest in computers; above average academically; able to follow direction. DURATION/DATES: 3 1-week sessions (6/8-26). EST. COST: $140. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/15. CONTACT: Gladys Kerr, Box 3019, Wingate College, Wingate, NC 28174 (704-233-4061, ext. 190).

RESIDENTIAL

APPALACHIAN STATE UNIVERSITY. KING ARTHUR'S BRITAIN. RESEARCH/COURSES: creative writing; myths; early sciences of chemisty, astronomy, etc.. ENROLLMENT: 20. GRADE(S): 7-12. QUALIFIERS: 120 IQ; high interest in science, literature, writing and travel; high creativity; recommendation; achievement test 2 levels above placement. DURATION/DATES: 2 weeks (7/27-8/13). EST. COST: $1995. SCHOLARSHIPS: none. APPLICATION DEADLINE: as soon as possible. CONTACT: Dr. John Tashner, Department of Educational Foundations, Appalachian State University, Boone, NC 28608 (704/262-3112).

APPALACHIAN STATE UNIVERSITY. MARINE BIOLOGY IN THE CARIBBEAN. RESEARCH/COURSES: biology; chemistry; geology. ENROLLMENT: 20. GRADE(S): 7-12. QUALIFIERS: 120+ IQ; achievement test 2 levels above placement; high interest in science; high creativity; school recommendations. DURATION/DATES: 2 weeks (7/12-25). EST. COST: $1850. SCHOLARSHIPS: none. APPLICATION DEADLINE: as soon as possible. CONTACT: Dr. John Tashner, Department of Educational Foundations, Appalachian State University, Boone, NC 28608 (704/262- 3112).

APPALACHIAN STATE UNIVERSITY. SUMMER SCIENCE PROGRAM FOR GIFTED/TALENTED SECONDARY STUDENTS. RESEARCH/COURSES: biology; chemistry; physics; computer science; psychology; philosophy; physiology, foreign affairs, creative/technical writing. ENROLLMENT: 120/session. GRADE(S): 7-12. QUALIFIERS: 120+ IQ; achievement test 2 levels above placement; high interest in science; high creativity; school recommendation. DURATION/DATES: 2 2-week sessions (6/14-27; 6/28-7/11). EST. COST: $495. SCHOLARSHIPS: very few. APPLICATION DEADLINE: April. CONTACT: Dr. John Tashner, Department of Educational Foundations, Appalachian State University, Boone, NC 28608 (704/262- 2269).

BENNETT COLLEGE AND NORTH CAROLINA A&T STATE UNIVERSITY. INTENSIVE SUMMER SCIENCE PROGRAM. COURSES: mathematics (through calculus); science (biology, chemistry, physics); computer science (BASIC, PASCAL, FORTRAN); communication skills. ENROLLMENT: 125. GRADE(S): 10/11/12. QUALIFIERS: letter of recommendation; student interest; H.S. transcript. DURATION/DATES: 4 weeks (6/14-7/11). EST. COST: $400. SCHOLARSHIPS: yes (limited). APPLICATION DEADLINE: 4/30. CONTACT: Dr. Nellouise D. Watkins, Bennett College, 900 E. Washington Street, Greensboro, NC 27401 (919/370-8684). additional contact: Dr. William Delander, Bennett College, 900 E. Washington Street, Greensboro, NC 24701; 919/370-8684

DAVIDSON COLLEGE. DAVIDSON JULY EXPERIENCE. COURSES: biology; economics, english; history; mathematics; philosophy; physics; political science. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: H.S. record; recommendations. DURATION/DATES: 4 weeks (7/5-31). EST. COST: $1135. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Miriam A. Leiva, Director, Davidson July Experience, Davidson College, Davidson, NC 28036 (704/892- 2000, ext. 130).

DUKE UNIVERSITY. DUKE UNIVERSITY'S PRECOLLEGE PROGRAM. COURSES: biology; astronomy; computer science for engineering; calculus; and intermediate calculus. ENROLLMENT: 110. GRADE(S): 12. QUALIFIERS: academic ability; motivation; emotional maturity; likelihood of contribution to the program. DURATION/DATES: 6 and 1/2 weeks (6/28-8/14). EST. COST: $2100. SCHOLARSHIPS: about 15% of students receive financial aid. APPLICATION DEADLINE: 3/9. CONTACT: Lucy Haagen, Precollege Program, 01 West Duke Building, Durham, NC 27708 (919/684-3847).

DUKE UNIVERSITY. TALENT IDENTIFICATION PROGRAM SUMMER RESIDENTIAL PROGRAM. COURSES: biology; chemistry; physics; animal behavior; precalculus mathematics sequence; discrete mathematics; number theory. ENROLLMENT: 400/term or 800. GRADE(S): 8-11. QUALIFIERS: SAT scores if taken in 7th grade or 50 points higher each section if taken later; SAT-verbal 500+; or SAT-math 550+; or combination SAT-V 450+ and SAT-M 500+. DURATION/DATES: 3 weeks/term (6/27-7/18; 7/25-8/15). EST. COST: $1160-1300. SCHOLARSHIPS: financial aid available. APPLICATION DEADLINE: 4/30 (early application is recommended). CONTACT: Lucy E. Haagen, Assistant Director for Educational Programs, Talent Identification Program; 01 West Duke Building, Duke University, Durham, NC 27708 (919/684-3847).

LIVINGSTONE COLLEGE. SUMMER ENRICHMENT PROGRAM. COURSES: biology; mathematics; computer science. ENROLLMENT: 75. GRADE(S): 10-12. QUALIFIERS: recommendation of H.S. guidance counselors and science teachers. DURATION/DATES: 6/28-7/17. EST. COST: $300. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Margaret Curtis, 701 West Monroe Street, Livingstone College, Salisbury, NC 28144 (704/633-7960, ext. 81).

*Planned, but not definite

MARS HILL COLLEGE. SCHOLASTIC AND ARTS PROGRAM. RESEARCH/COURSES: robotics; computer graphics; chemistry. ENROLLMENT: 85 (session I); 52 (session II). GRADE(S): 5-8 (session I); 9/10/11 (session II). QUALIFIERS: student interest; teacher recommendation; parent interest; test data; performance record based on high honors. DURATION/DATES: session I (2 weeks; 7/5-17); session II (3 weeks; 7/19-8/7). EST. COST: $450 (session I); $575 (session II). SCHOLARSHIPS: restricted. APPLICATION DEADLINE: 4/17. CONTACT: Kenneth L. Richards, Mars Hill College Scholastic and Arts Program, Mars Hill, NC 28754 (704/689-1166/1167).

NORTH CAROLINA SCHOOL OF SCIENCE AND MATHEMATICS. TWO-YEAR PUBLIC RESIDENTIAL HIGH SCHOOL. RESEARCH/COURSES: biology; chemistry; physics; mathematics; computer science. ENROLLMENT: 475. GRADE(S): 11/12. QUALIFIERS: H.S. grades; SAT scores; recommendations, personal interview. DURATION/DATES: academic year. EST. COST: free. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 1/31. CONTACT: Charles Eilber, Director, Box 2418, Durham, NC 27705 (919/286-3366).

UNIVERSITY OF NORTH CAROLINA (6 CAMPUSES: WILMINGTON, EAST CAROLINA UNIVERSITY, NORTH CAROLINA CENTRAL UNIVERSITY, UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE, APPALACHIAN STATE UNIVERSITY, AND WESTERN CAROLINA UNIVERSITY). SUMMER VENTURES IN SCIENCE AND MATHEMATICS. RESEARCH/COURSES: natural and physical sciences; mathematics; computer science; career exploration; communication skills; social issues. ENROLLMENT: 720. GRADE(S): 11/12. QUALIFIERS: GPA; grades in science and math classes; CAT scores; teacher evaluation; maturity; evidence of real interest in science and mathematics. DURATION/DATES: 2 5-week sessions (6/28-7/31; 7/5- 8/7). EST. COST: travel. SCHOLARSHIPS: for travel and incidentals. APPLICATION DEADLINE: 3/16. CONTACT: J. Keith Brown, Summer Ventures in Science and Mathematics, P.O. Box 2976, Durham, NC 27705 (919/286-3366).

UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE. ENGINEERING INSTITUTE. COURSES: engineering statics, engineering mathematics; engineering and industry; computer science. ENROLLMENT: 70 (40-engineering; 30-science). GRADE(S): 11/12. QUALIFIERS: upper quarter of class; strong interest in science and engineering. DURATION/DATES: 3 weeks (6/4-7/3). EST. COST: $150-$350 (depends on scholarship award). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/6. CONTACT: John G. Stevens, Physical Sciences and Engineering Institute, University of North Carolina at Asheville, Asheville, NC 28804 (704/251-6122).

UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE. PHYSICAL SCIENCE INSTITUTE. COURSES: particle physics; chemical structure and reactivity; reactivity and matrix transformation groups; computer science. ENROLLMENT: 70 (40-engineering; 30-science). GRADE(S): 11/12. QUALIFIERS: upper quarter of class; strong interest in science and engineering. DURATION/DATES: 3 weeks (6/4-7/3). EST. COST: $150-$350 (depends on scholarship award). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/6. CONTACT: John G. Stevens, Physical Sciences and Engineering Institute, University of North Carolina at Asheville, Asheville, NC 28804 (704/251-6122).

UNIVERSIY OF NORTH CAROLINA AT WILMINGTON. COAST TREK: A SUMMER EXPERIENCE FOR THE ACADEMICALLY GIFTED AGES 11-13. RESEARCH/COURSES: marine science; biology. ENROLLMENT: 22. GRADE(S): 6/7/8. QUALIFIERS: must be designated academically gifted by their school system with a written confirmation from their principal on school letterhead. DURATION/DATES: 1 week (7/5-11; 7/12-18; 7/26-8/2). EST. COST: $310. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/22; 5/29; 6/12. CONTACT: Diane Barry Talley, Office of Special Programs, University of North Carolina at Wilmington, 601 South College Road, Wilmington, NC 28403-3297 (919/395-3195).

OHIO

COMMUTER

BALDWIN-WALLACE COLLEGE. TALENTED HIGH SCHOOL STUDENTS PROGRAM. COURSES: physics; chemsitry; mathematics; biology; geology. ENROLLMENT: 8. GRADE(S): 12. QUALIFIERS: H.S. counselor recommendation; college admission standards. DURATION/DATES: academic year and summer. EST. COST: $141/credit hour; students may audit (no credit or course fee). SCHOLARSHIPS: none. APPLICATION DEADLINE: 2 weeks prior to term. CONTACT: , Admission Office, Baldwin-Wallace College, 275 Eastland Road, Berea, OH 44017 (216/826-2222).

CASE WESTERN RESERVE UNIVERSITY. CASE EARLY EXPOSURE TO ENGINEERING FOR MONORITY STUDENTS (CE3MS). COURSES: mathematics (intro. to algebra II/trigonometry or geometry); chemistry; computer science (PASCAL programming). ENROLLMENT: 50. GRADE(S): 10/11. QUALIFIERS: interest in math and science; enrollment in college prep curriculum; good grades and PSAT scores; good attendance. DURATION/DATES: 5 weeks (6/29-7/31). EST. COST: none, students receive a small stipend to cover the cost of their food and transportation. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/30. CONTACT: Margaret E. Boulding, Baker Building, Room 116, Case Western Reserve University, Cleveland, OH 44106 (216/368-2904).

CASE WESTERN RESERVE UNIVERSITY. MINORITY ENGINEERS INDUSTRIAL OPPORTUNITY PROGRAM (MEIOP). COURSES: mathematics; physics (including laboratory sessions); expository writing and speech; hands-on engineering project. ENROLLMENT: 25-35. GRADE(S): 12. QUALIFIERS: interest in math and science; motivation and responsibility; recommendations; college prep curriculum; good grades; PSAT, SAT,or ACT scores, if available. DURATION/DATES: 5 weeks (6/29-7/31). EST. COST: none, students receive a small stipend to cover the cost of their food and transportation. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/30. CONTACT: Margaret E. Boulding, Baker Building, Room 116, Case Western Reserve University, Cleveland, OH 44106 (216/368-2904).

CENTRAL STATE UNIVERSITY. CENTRAL STATE UNIVERSITY BIOMEDICAL RESEARCH PROGRAM. RESEARCH: biology; biochemistry. ENROLLMENT: 6 (2- sophomores; 2-juniors; 2-seniors). GRADE(S): 10/11/12. QUALIFIERS: overall B average; biology or chemistry major; interest in animal research. DURATION/DATES: academic year and summer. EST. COST: none. SCHOLARSHIPS: students participate as paid research assistants. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Melvin A. Johnson, Dean, College of Arts and Sciences, Central State University, Wilberforce, OH 45384 (513/376-6324).

CLEVELAND STATE UNIVERSITY. SENIOR YEAR ACCELERATION PROGRAM (SYAP). COURSES: analytical geometry and calculus; general chemistry; college physics; engineering science. ENROLLMENT: 12. GRADE(S): 12. QUALIFIERS: permission of H.S. counselor; 3.0 average in H.S.; completed 15 units in H.S.. DURATION/DATES: academic year; 12 week/session. EST. COST: $53/credit hour. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 9/15. CONTACT: Dr. Richard C. Dickerman, Director of Admissions, Cleveland State University, Cleveland, OH 44115 (216/687-3763).

DEFIANCE COLLEGE. EARLY ADMISSION. COURSES: biological sciences; chemistry; physics; computer science; calculus. ENROLLMENT: 2-3. GRADE(S): 11/12. QUALIFIERS: 3.00+ GPA; recommended by H.S.; application submitted in person. DURATION/DATES: academic year and summer (6/1-7/2; 7/6-8/6). EST. COST: $105/credit hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: two weeks before classes begin. CONTACT: Dr. Robert M. Goffga, Associate Academic Dean, The Defiance College, Defiance, OH 43512 (419/784-4010, ext. 315). Early Admission is for August program, not just for science and mathematics classes. Area students may take day or evening classes in fall, spring and summer. All courses carry college credit and may not be applied to high school graduation.

HEIDELBERG COLLEGE. EXCEPTIONAL HIGH SCHOOL SENIORS AT HEIDELBERG. COURSES: mathematics; computer science; biology; physics; chemistry; geology. ENROLLMENT: 15. GRADE(S): 12. QUALIFIERS: GPA 3.4+; rank in top 10% of H.S. class; combined score of 1200+ on SAT (or equivalency of PSAT or ACT); or recommendation of H.S. counselor or principal. DURATION/DATES: academic year and summer (6/15-7/17; 7/20-8/14). EST. COST: $210/semester hour. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 6/9 & 7/13 (summer); 8/24 (fall); 1/4 (spring). CONTACT: Robert L. Joyce, Director of Lifelong Learning, Heidelberg College, 310 E. Market Street, Tiffin, OH 44883 (419/448-2094).

***HIRAM COLLEGE. HIRAM SUMMER SCHOLARS.** COURSES: 6 different sessions: problem solving (psychology of learning); outdoor adventures (environmental studies); astronomy (physics); animal behavior (biology); problem solving with computers (computer science/math); genetics (microbiology). ENROLLMENT: 110 students; 40 public school teachers. GRADE(S): 5-8; and genetics for 10-12. QUALIFIERS: teacher recommendation. DURATION/DATES: 6/15-7/31. EST. COST: $50/session; genetics $500/session. SCHOLARSHIPS: very available for 70% of students if funding is forthcoming. APPLICATION DEADLINE: 6/1. CONTACT: Craig L. Moser, Hiram College, Hinsdale 3rd Floor, Hiram, OH 44234 (unknown).

MUSKINGUM COLLEGE. ADVANCED PLACEMENT PROGRAM. COURSES: sciences and mathematics. ENROLLMENT: varies. GRADE(S): 12 (younger students with evidence of college readiness). QUALIFIERS: grades; recommendations; H.S. math and science required for some courses. DURATION/DATES: academic year (August- May). EST. COST: $300/hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: July. CONTACT: Andrew Frese, Muskingum College, Montgomery Hall, New Concord, OH 43762-1199 (614/826-8246).

MUSKINGUM COLLEGE. SUMMER YOUTH ACADEMY. COURSES: physics; biology; chemistry; geology; computer science. ENROLLMENT: 40-80. GRADE(S): 5-9. QUALIFIERS: recommendation of talented and gifted instructor; guidance counselor. DURATION/DATES: 2 1-week sessions (6/8-12, 6/15-19). EST. COST: $50. SCHOLARSHIPS: $75 included scholarship. APPLICATION DEADLINE: 5/15. CONTACT: Andrew Frese, Muskingum College, Montgomery Hall, New Concord, OH 43762-1199 (614/826-8246).

OHIO UNIVERSITY. HONORS ACADEMY. COURSES: mathematics; chemistry; physical sciences; biology. ENROLLMENT: 15. GRADE(S): 7-10. QUALIFIERS: high achievement; recommendations. DURATION/DATES: 5 weeks (6/15-7/18). EST. COST: none. SCHOLARSHIPS: tuition scholarships furnished. APPLICATION DEADLINE: 5/15. CONTACT: Dr. Margaret F. Cohn, 35 Park Place, Ohio University, Athens, OH 45701 (614/593-2723).

RIO GRANDE COLLEGE. SUMMER SCHOLAR PROGRAM. COURSES: physical science; biology; mathematics. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: top 50% of class. DURATION/DATES: 2 5-week summer sessions. EST. COST: $5/credit. SCHOLARSHIPS: free tuition. APPLICATION DEADLINE: 5/31. CONTACT: Susan A. Hood, Admissions Counselor, Rio Grande College, Rio Grande, OH 45674 (614/245-5353; 800/282-7201 (toll free in Ohio)).

WALSH COLLEGE. EARLY ADMISSION. COURSES: multi-disciplinary. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: GPA of 3.0+; recommendation of counselor or teacher. DURATION/DATES: academic year and summer (semester). EST. COST: $15 plus book and lab fees. SCHOLARSHIPS: none. APPLICATION DEADLINE: 2 weeks before semester begins. CONTACT: Ms. Fran Kehoe, Walsh College, 2020 Easton St. NW, Canton, OH 44720 (216/499-7090; 800/362-9846 (Ohio only)).

WALSH COLLEGE. EDGE PROGRAM. COURSES: biology; chemistry; computer science; humanities. ENROLLMENT: 25. GRADE(S): 7/8/9. QUALIFIERS: recommendation; academically talented. DURATION/DATES: 2 weeks (June). EST. COST: $50-150. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/15. CONTACT: Ms. Fran Kehoe, Walsh College, 2020 Easton St., NW, Canton, OH 44720 (216/499-7090; 800/362-9846 (Ohio only)).

*Planned, but not definite

COMMUTER/RESIDENTIAL

ASHLAND COLLEGE. MOLECULAR BIOLOGY WORKSHOP. RESEARCH/COURSES: biology; chemistry. ENROLLMENT: 20. GRADE(S): 11/12. QUALIFIERS: recommendation by H.S. teacher or advisor. DURATION/DATES: 4 weeks (1st session: 6/8-7/2; 2nd session: 7/6-31). EST. COST: unknown. SCHOLARSHIPS: none. APPLICATION DEADLINE: unknown. CONTACT: Dr. Jerry J. Cole, Chemistry Department, Ashland College, Ashland, OH 44805 (419/289-4142, ext. 5268).

CASE WESTERN RESERVE UNIVERSITY. SUMMER SYMPOSIUM. COURSES: science; engineering; health science. ENROLLMENT: 35/program. GRADE(S): 12. QUALIFIERS: H.S. rank; GPA; PSAT score. DURATION/DATES: 1 week (July). EST. COST: $300. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Jamie Hobba, Admission Counselor, Office of Undergraduate Admission, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106 (216/369-4450).

CLEVELAND STATE UNIVERSITY. SENIOR YEAR ACCELERATION PROGRAM. COURSES: mathematics; biology; chemistry; physics; engineering; geology. ENROLLMENT: variable. GRADE(S): 12. QUALIFIERS: grades; H.S. counselor recommendation; SAT/ACT scores; prerequisite H.S. courses. DURATION/DATES: academic quarter. EST. COST: $53/quarter hour of credit. SCHOLARSHIPS: none. APPLICATION DEADLINE: one month before quarter begins. CONTACT: R.C. Dickerman, Director of Admissions, Cleveland State University, 1983 East 24th Street, Cleveland, OH 44115 (216/687-3755).

HIRAM COLLEGE. ECOLOGY OF LAKES AND STREAMS. RESEARCH/COURSES: biology-aquatic biology; surveys; plant and animal identification; ecosystem sampling and analysis. ENROLLMENT: 10. GRADE(S): 11/12+. QUALIFIERS: students should have AP biology or equivalent. DURATION/DATES: 8/17-8/26. EST. COST: $500. SCHOLARSHIPS: uncertain. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Martin K. Huehner, Biology Department, Hiram College, Hiram, OH 44234 (216/569-5264).

HIRAM COLLEGE. FOREST ECOLOGY—HOW A DECIDUOUS FOREST ECOSYSTEM WORKS. RESEARCH/COURSES: biology - plant and animal identification; ecosystem surveys; vegetation analysis, data analysis and interpretation. ENROLLMENT: 10 (maximum). GRADE(S): 11/12+. QUALIFIERS: students should have AP biology or equivalent. DURATION/DATES: 6/15-26. EST. COST: $600. SCHOLARSHIPS: uncertain. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Martin K. Huehner, Biology Department, Hiram College, Hiram, OH 44234 (216/569- 5264).

MUSKINGUM COLLEGE. SUMMER YOUTH ACADEMY. COURSES: chemistry; German; English. ENROLLMENT: 20. GRADE(S): 10/11/12. QUALIFIERS: SAT- ACT scores; recommendation of subject area teacher; guidance counselor. DURATION/DATES: 3 weeks (6/8-26). EST. COST: $160 + room and board (chemistry); $120 + room and board (German and English). SCHOLARSHIPS: cost includes $120-160 scholarship. APPLICATION DEADLINE: 5/15. CONTACT: Andrew Frese, Muskingum College, Montgomery Hall, New Concord, OH 43762-1199 (614/826-8246).

OHIO STATE UNIVERSITY. ENGINEERING SUMMER ACADEMY. COURSES: FORTRAN computer programming; graphic language of engineering. ENROLLMENT: 25. GRADE(S): 12. QUALIFIERS: PSAT/m 58 or above. DURATION/DATES: 3 weeks (6/29-7/17). EST. COST: $518 (in-state); $744 (out-of-state). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: James L. Marshall, Assistant Dean, College of Engineering, The Ohio State University, 2070 Neil Avenue, Columbus, OH 43210 (614/292-8228).

OHIO STATE UNIVERSITY. SUMMER ACADEMY. COURSES: mathematics; foreign languages; physical sciences; biological sciences; others. ENROLLMENT: varies. GRADE(S): 11/12. QUALIFIERS: prerequisites. DURATION/DATES: 6/22-7/28; 7/29-9/2. EST. COST: varies. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1 (earlier enrollment desirable). CONTACT: Sheri E. Bidwell, University College, The Ohio State University, 1050 Carmack Rd., Columbus, OH 43210 (614/292-9141).

OHIO STATE UNIVERSITY. SUMMER SCIENCE TRAINING PROGRAM (SSTP). RESEARCH/COURSES: mathematics (number theory, combinatorics, algorithmic questions, algorithmic mathematics and computers). ENROLLMENT: 75. GRADE(S): 9-12. QUALIFIERS: maturity; a searching questionnaire; some talent search problems. DURATION/DATES: 8 weeks (6/21-8/15). EST. COST: $1,120 (approximately). SCHOLARSHIPS: yes. APPLICATION DEADLINE: at least one month before start of program. CONTACT: Prof. Arnold E. Ross, Department of Mathematics, The Ohio State University, 231 West 18th Avenue, Columbus, OH 43210 (614/292-1569 or 4975).

RESIDENTIAL

MIAMI UNIVERSITY. JUNIOR SCHOLARS PROGRAM. COURSES: pre-calculus; discrete mathematics; statistics; computer science; physics; geography; geology; psychology; sociology; anthropology; botany; microbiology; zoology. ENROLLMENT: 125. GRADE(S): 12. QUALIFIERS: H.S. grades; class rank; PSAT scores. DURATION/DATES: 6/28-8/7. EST. COST: $700 (Ohio resident); $950 (out-of- state). SCHOLARSHIPS: included in cost. APPLICATION DEADLINE: 6/1. CONTACT: David E. Kullman, Junior Scholars Program, Miami University, Oxford, OH 45056 (513/529-6538).

MIAMI UNIVERSITY. SUMMER ENRICHMENT PROGRAM FOR TOMORROW'S LEADERS. COURSES: science; mathematics. ENROLLMENT: 100/week. GRADE(S): 5-8. QUALIFIERS: nomination by school; talented & gifted program; IQ above 125; achievement 2 years above grade level. DURATION/DATES: 3 1- week sessions (6/28-7/17). EST. COST: $290. SCHOLARSHIPS: none. APPLICATION DEADLINE: 3/15. CONTACT: Dr. Raymond Carleton, Department of Educational Psychology, Miami University, 101 McGuffey Hall, Oxford, OH 45056 (513/529-2432).

OHIO UNIVERSITY. SUMMER SCHOLAR PROGRAM. COURSES: students may take any science, math, or engineering course offered for which they have the background. ENROLLMENT: 50. GRADE(S): completed 11. QUALIFIERS: top 10% of class; approval of parents; recommendation of principal, guidance counselor or national honor society advisor. DURATION/DATES: 5 weeks (6/15-7/18). EST. COST: $360 (for dorm and dining expense) plus text book costs. SCHOLARSHIPS: scholarship covers 7 hours of course work. APPLICATION DEADLINE: 5/15. CONTACT: Dr. James Walters, Director of Admissions, Ohio University, Chubb Hall, Athens, OH 45701 (614/593-4100).

***UNIVERSITY OF AKRON. SUMMER SCHOLARS SEMINAR PROGRAM.** RESEARCH/COURSES: biology; environmental science; mathematics/computer science; language arts; composition. ENROLLMENT: 26. GRADE(S): 11/12. QUALIFIERS: H.S. GPA 3.0 or higher; top 25% of class; recommendation of H.S. principal; composite ACT score of 23 (if available). DURATION/DATES: 6/14-26. EST. COST: $125. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/8. CONTACT: Marion A. Ruebel, Dean, University College Dean's Office, The University of Akron, Akron, OH 44325 (216/375-7067). genes; function and regulation. ENROLLMENT: 3-4. GRADE(S): 11/12. QUALIFIERS: chemistry course completed. DURATION/DATES: 6/22-26. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 3/1. CONTACT: David E. Roll, Roberts Wesleyan College, 2301 Westside Dr., Rochester, NY 14624 (716/594-9471, ext. 138).

OKLAHOMA

COMMUTER/RESIDENTIAL

SOUTHWESTERN OKLAHOMA STATE UNIVERSITY. SOUTHWESTERN SUMMER SCIENCE CAMP. COURSES: astronomy; chemistry; computer science; physics. ENROLLMENT: 30. GRADE(S): 12. QUALIFIERS: GPA; test scores; science teacher recommendation. DURATION/DATES: 6 weeks (6/8-7/17). EST. COST: $500. SCHOLARSHIPS: limited number of tuition grants. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Harold M. White, Department of Chemistry, Southwestern Oklahoma State University, Weatherford, OK 73096 (405/772-6611, ext. 3115).

UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER. HEADLANDS INDIAN HEALTH CAREERS. COURSES: algebra; trigonometry; calculus; physics; chemistry; biology. ENROLLMENT: 23. GRADE(S): 12. QUALIFIERS: American Indian students; 2.5 GPA; two years of algebra; two years of science. DURATION/DATES: 8 weeks (6/12-8/8). EST. COST: none. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/15. CONTACT: Tom Hardy, Library, Room 113, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190 (405/271-2250).

RESIDENTIAL

OKLAHOMA STATE UNIVERSITY (CO-SPONSORED BY THE NATIONAL ENDOWMENT FOR THE HUMANITIES). ANCIENT STUDIES; THE WORLD OF CLASSICAL GREECE. RESEARCH/COURSES: classical science (focusing on astronomy); mathematics. ENROLLMENT: 75. GRADE(S): 8-11. QUALIFIERS: test scores; letters of recommendations. DURATION/DATES: 2 weeks (6/14-26). EST. COST: $100. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1/87. CONTACT: Robert Graalman, Arts and Sciences Special Programs, 201 L.S.E., Oklahoma State University, Stillwater, OK 74078 (405/624-5663).

UNIVERSITY OF OKLAHOMA BIOLOGICAL STATION. STUDENT SCIENCE TRAINING PROGRAM FOR PRE-COLLEGE STUDENTS. RESEARCH/COURSES: ecology; natural history; taxonomy; evolution; morphology; physiology of organisms in natural habitats (limnology; parasitology; fish ecology; entomology; ornithology; botany; herpetology). ENROLLMENT: 15. GRADE(S): 11/12. QUALIFIERS: GPA (B or better); demonstrated interest in research; recommendations;. DURATION/DATES: 8 weeks (5/30-7/25). EST. COST: $340. SCHOLARSHIPS: usually 15 available. APPLICATION DEADLINE: 4/30. CONTACT: Loren G. Hill, and Scott D. Shalaway, University of Oklahoma Biological Station, 730 Van Vleet Oval, Norman, OK 73019 (405/325-5391). contact person: Linda Hill

OREGON

COMMUTER

PORTLAND STATE UNIVERSITY. CHALLENGE PROGRAM. COURSES: calculus; computer science. ENROLLMENT: varies. GRADE(S): 12. QUALIFIERS: academic achievement; 3.00 GPA; faculty recommendation. DURATION/DATES: academic year. EST. COST: $35/quarter. SCHOLARSHIPS: none. APPLICATION DEADLINE: 9/15 (fall); 1/1 (winter); 4/1 (spring). CONTACT: Karen Tosi, Office of Academic Affairs, Portland State University, P.O. Box 751, Portland, OR 97207 (503/229-3430).

REED COLLEGE. SUMMER WORKSHOP FOR ACADEMICALLY GIFTED HIGH SCHOOL STUDENTS. RESEARCH/COURSES: various. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: participants are selected by their H.S.. DURATION/DATES: 2 weeks (8/10-21). EST. COST: $85. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/21. CONTACT: Toinette Menashe, Reed College, Portland, OR 97202 (503/777-7259).

UNIVERSITY OF PORTLAND. PRE-COLLEGE HONORS PROGRAM. COURSES: computer science; marine science; engineering. ENROLLMENT: 75. GRADE(S): 11/12. QUALIFIERS: Dean's committee will accept students and award scholarships to students with 3.4 H.S. GPA. DURATION/DATES: 4 or 8-week sessions (6/15-7/9; 7/13-8/6). EST. COST: $460 (regular tuition); $250 (with scholarship). SCHOLARSHIPS: available for students with 3.4 GPA. APPLICATION DEADLINE: 6/7. CONTACT: Dean Richard Berg, University of Portland, 5000 North Willamette Boulevard, Portland, OR 97203 (503/283-7221).

*Planned, but not definite

RESIDENTIAL

***EASTERN OREGON STATE COLLEGE. PRECOLLEGE ENGINEERING PROGRAM.** COURSES: engineering. ENROLLMENT: 20. GRADE(S): 7/8/9. QUALIFIERS: letters from teachers. DURATION/DATES: 6/21-7/24. EST. COST: room and board only. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/1. CONTACT: Prof. Richard A. Hermens, Dept. of Chemistry, Eastern Oregon State College, La Grande, OR 97850 (503/963-1316).

OREGON MUSEUM OF SCIENCE AND INDUSTRY. ANTHROPOLOGY SURVEY OF SOUTHWESTERN CULTURES. COURSES: anthropology; cultural history; geology; natural history. ENROLLMENT: 30. GRADE(S): high school. QUALIFIERS: interest in anthropology and natural sciences; recommendation. DURATION/DATES: 3 weeks (6/13-7/3). EST. COST: $320. SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 5/18. CONTACT: Joseph Jones, Hancock Field Station, Fossil, OR 97830 (503/763-4691).

OREGON MUSEUM OF SCIENCE AND INDUSTRY. NATURAL SCIENCE FIELD STUDY PROGRAM. RESEARCH/COURSES: natural science field study; geology; botany; zoology; paleontology; archaeology; astronomy. ENROLLMENT: 50. GRADE(S): high school. QUALIFIERS: letter of interest in the natural sciences; recommendations. DURATION/DATES: 2 weeks (8/9-22). EST. COST: $315. SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 5/18. CONTACT: Joseph Jones, Hancock Field Station, Fossil, OR 97830 (503/763-4691).

OREGON MUSEUM OF SCIENCE AND INDUSTRY. PALEONTOLOGY RESEARCH TEAM. RESEARCH/COURSES: paleontology; paleobotany; vertebrate paleontology; geology; botany; zoology. ENROLLMENT: 10. GRADE(S): high school. QUALIFIERS: letter of interest; recommendation. DURATION/DATES: 5 weeks (7/6-8/8). EST. COST: $515. SCHOLARSHIPS: limited, based on need. APPLICATION DEADLINE: 5/18. CONTACT: Joseph Jones, Hancock Field Station, Fossil, OR 97830 (503/763-4691).

PENNSYLVANIA

COMMUTER

ALBRIGHT COLLEGE. COLLEGE OPPORTUNITY PROGRAM. COURSES: calculus; chemistry; biology. ENROLLMENT: 35. GRADE(S): 10/11. QUALIFIERS: top 20% of class; recommendation. DURATION/DATES: 2 4-week sessions (6/15-7/10; 7/13- 8/7). EST. COST: $60/credit. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/10. CONTACT: Dr. Paul Sable, Continuing Education, P.O. Box 15234, Albright College, Reading, PA 19612 (215/921-2381).

ALBRIGHT COLLEGE. YOUTH ENRICHMENT PROGRAM. COURSES: introduction to PASCAL. ENROLLMENT: 10. GRADE(S): 7. QUALIFIERS: none. DURATION/DATES: 5 weeks (7/8-8/7). EST. COST: $75. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/10. CONTACT: Dr. Paul Sable, Continuing Education, P.O. Box 15234, Albright College, Reading, PA 19612 (215/921-2381).

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. See listing in Washington, D.C.

GWYNEDD-MERCY COLLEGE. INTRODUCTION TO MICROBIAL LABORATORY TECHNIQUES: A YOUTH ENRICHMENT PROGRAM. COURSES: biology; chemistry. ENROLLMENT: 80. GRADE(S): 11/12. QUALIFIERS: H.S. recommendation; high science ability. DURATION/DATES: 1 week (6/22-26). EST. COST: $50. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 6/1. CONTACT: Sister Joanne Whitaker, Ph.D., Gwynedd-Mercy College, Gwynedd, PA 19437 (215/646-7300, ext. 109).

LA ROCHE COLLEGE. SCIENCE EXPLORATION '87. RESEARCH/COURSES: biological sciences; chemistry; computers; genetics; physics. ENROLLMENT: 30 maximum. GRADE(S): 7-9. QUALIFIERS: based on science teacher referral and written essay. DURATION/DATES: 6/15-26. EST. COST: $150. SCHOLARSHIPS: 30 available. APPLICATION DEADLINE: 6/1. CONTACT: Deborah L. Devine- Ference, 9000 Babcock Boulevard, Pittsburgh, PA 15237 (412/367-9300, ext. 213).

LA ROCHE COLLEGE. SCIENCE SYMPOSIUM. COURSES: medicine; biology; genetics, current topics in science. ENROLLMENT: 175. GRADE(S): 10/11/12. QUALIFIERS: students enrolled in academic H.S. program; currently taking H.S. science courses. DURATION/DATES: 1 day (fall). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: none. CONTACT: Marianne Leister, 9000 Babcock Boulevard, Pittsburgh, PA 15237 (412/367-1501).

***PENNSYLVANIA JUNIOR ACADEMY OF SCIENCE REGION 7 (IN CO-OPERATION WITH DUSQUESNE UNIVERSITY, CARNEGIE MELLON UNIVERSITY AND THE UNIVERSITY OF PITTSBURGH). SCIENCE WORKSHOP SERIES.** COURSES: chemistry; physics; biology; computer science. ENROLLMENT: 96. GRADE(S): 10/11/12. QUALIFIERS: Each participating high school may nominate a maximum of 4 students. The students nominated are then invited by the Program Director to register. DURATION/DATES: 6 Saturdays, October/November. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Kurt D. Schreiber, Dept. of Chemistry, Dusquesne University, Pittsburgh, PA 15282 (412/434- 6341; 412/521-1647).

UNIVERSITY OF PENNSYLVANIA. PENN'S ENRICHMENT FOR GIFTED AND ACADEMICALLY TALENTED YOUTH. COURSES: molecular biology; mathematics; physics; chemistry. ENROLLMENT: 350. GRADE(S): 4-10. QUALIFIERS: recommendation from teacher attesting that student is in top 20% of class and/or is especially qualified for accelerated pace. DURATION/DATES: academic year and summer; 1-3 weeks/course (summer); 4-6 Saturday morning session (fall and spring). EST. COST: $125/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 2 weeks prior to start of course. CONTACT: Susan Z. Duggan, College of General Studies, University of Pennsylvania, 3808 Walnut Street, Philadelphia , PA 19104- 6136 (215/898-6763).

WESTINGHOUSE RESEARCH AND DEVELOPMENT CENTER. WESTINGHOUSE SCIENCE HONORS INSTITUTE. COURSES: physics; chemistry; biology; metallurgy; computer applications. ENROLLMENT: 250-280. GRADE(S): 12. QUALIFIERS: PSAT/SAT scores; teacher recommendation; grades; screening. DURATION/DATES: academic year (October-March). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 10/15. CONTACT: Dr. Susan Wood, Westinghouse Research and Development Center, 1310 Beulah Road, Pittsburgh, PA 15235 (412/256- 1052).

WIDENER UNIVERSITY. HIGH SCHOOL HONORS PROGRAM. COURSES: biology, chemistry; computer science; environmental science; mathematics; physics (college courses with credit). ENROLLMENT: varies. GRADE(S): 10/11/12. QUALIFIERS: recommendations of guidance counselor and subject area H.S. teacher. DURATION/DATES: academic year and summer (three summer sessions). EST. COST: $25/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: one week prior to start of session. CONTACT: Mr. Steven Adams, Assistant Provost, Widener University, Chester, PA 19013 (215/499-4107).

WIDENER UNIVERSITY. WIDENER UNIVERSITY SCIENCE EXPERIENCE FOR SELECTED HIGH SCHOOL STUDENTS. RESEARCH/COURSES: biology; chemistry; computer science; physics. ENROLLMENT: 60. GRADE(S): 10/11/12. QUALIFIERS: recommendation of school district science advisor. DURATION/DATES: 18 weeks (10/1-5/1). EST. COST: $30-60. SCHOLARSHIPS: some. APPLICATION DEADLINE: 9/15. CONTACT: T.J. O'Tanyi, Science Division, Widener University, Chester, PA 19013 (215/499-4004).

COMMUTER/RESIDENTIAL

BRYN MAWR COLLEGE. SUMMER SESSIONS. COURSES: general biology; general chemistry; physics; calculus. ENROLLMENT: 245. GRADE(S): 10/11/12. QUALIFIERS: successful completion of science courses noted on H.S. transcript; awareness of program's intensity. DURATION/DATES: 2 5-week semesters (6/8- 7/10; 7/10-8/14). EST. COST: $850/course/semester and fees. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/15. CONTACT: Patricia Onderdonk Pruett, Associate Dean and Director, Division of Special Studies, Bryn Mawr College, Bryn Mawr, PA 19010 (215/645-6197).

CARNEGIE MELLON UNIVERSITY. ADVANCED PLACEMENT/EARLY ADMISSION PROGRAM. COURSES: calculus; physics (mechanics); biology; chemistry (dynamics & equilibria); discrete mathematics of computer science, computing (PASCAL); writing. ENROLLMENT: 200. GRADE(S): Age 16+ or completed grade 11 for residents. QUALIFIERS: H.S. transcript, GPA; PSAT or SAT; recommendations. DURATION/DATES: 6/29-8/7. EST. COST: $2200 (residential); $750-1380 (commuter). SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 6/13. CONTACT: John R. Papinchak, Director of Summer Studies, Summer Studies Office, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213-3890 (412/268-6620).

DREXEL UNIVERSITY, PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE, TEMPLE UNIVERSITY, UNIVERSITY OF PENNSYLVANIA, AND VILLANOVA UNIVERSITY. PRIME UNIVERSITIES PROGRAM (PUP). COURSES: vary depending on location: biology; chemistry; communications; mathematics; pharmacy; health sciences; physics; computer science; engineering; actuarial science; statistics and probability. ENROLLMENT: 500-650. GRADE(S): 9-12 (varies with location). QUALIFIERS: Philadelphia, PA/Camden, NJ public school students only; interest and high aptitude in math and science; 80th percentile on CAT; A and B grades in math and science; teacher and/or counselor recommendation; motivation. DURATION/DATES: July • August. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Dr. Alexander Tobin, Executive Director, PRIME, Inc., 1700 Walnut St., Suite 1201, Philadelphia, PA 19103 (215/893- 8500).

GANNON UNIVERSITY. ENGINEERING SUMMER GUIDANCE PROGRAM. RESEARCH/COURSES: engineering (energy and materials); computer science; mathematics; science. ENROLLMENT: 30. GRADE(S): 11. QUALIFIERS: interest in engineering education; academic standing. DURATION/DATES: one week (7/26- 8/1). EST. COST: $180 (residential); $90 (commuter). SCHOLARSHIPS: one from Pennsylvania Junior Academy of Science. APPLICATION DEADLINE: 6/15. CONTACT: Dr. Halit M. Kosar, Dean, College of Science and Engineering, Gannon University, Erie, PA 16541 (814/871-7616).

PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE IN CONJUNCTION WITH PRIME. PRIME UNIVERSITIES PROGRAM. COURSES: biology; chemistry; communications; mathematics; pharmacy and allied health sciences. ENROLLMENT: 50. GRADE(S): 11/12. QUALIFIERS: B student in math and science; participant in PRIME program; recommendations. DURATION/DATES: 4 weeks (July). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: open. CONTACT: Dr. Alexander Tobin, or Mr. Frank Wells, PRIME, Suite 1201, 1700 Walnut Street, Philadelphia, PA 19103 (215/893-8500).

SAINT VINCENT COLLEGE. CHALLENGE PROGRAM. RESEARCH/COURSES: robotics; ecology; probability. ENROLLMENT: 20/class (60/week). GRADE(S): 7- 12. QUALIFIERS: open enrollment for gifted students. DURATION/DATES: 2 one-week sessions; 7/5-10 (ages 12-14) and 7/19-24 (ages 15-18). EST. COST: $345 (residential); $245 (commuter). SCHOLARSHIPS: partial. APPLICATION DEADLINE: 6/5. CONTACT: Mr. Paul J. Prokop, St. Vincent College, Latrobe, PA 15650-2690 (412/539-9761).

SETON HILL COLLEGE. ACCELERATED STUDY ACCESS PROGRAM. COURSES: biology; chemistry; physics; calculus. ENROLLMENT: unrestricted. GRADE(S): 11/12. QUALIFIERS: transcript; recommendation; talent; aimed at accelerated H.S. students. DURATION/DATES: academic year and summer. EST. COST: $300 + housing (summer). SCHOLARSHIPS: none. APPLICATION DEADLINE: variable. CONTACT: Martha Raak, Seton Hill College, Greensburg, PA 15601 (412/834-2200, ext. 209).

SETON HILL COLLEGE. SUMMER RESEARCH PROGRAM FOR HIGH ABILITY HIGH SCHOOL GIRLS. RESEARCH: biology. ENROLLMENT: 6. GRADE(S): 11/12. QUALIFIERS: H.S. biology; algebra II; high science motiva-

*Planned, but not definite

tion and ability; letter of interest; teacher recommendation; interview. DURATION/DATES: flexible 4-6 weeks (6/15-8/10). EST. COST: $25 + lab fee (commuter) + housing fee (residents). SCHOLARSHIPS: yes, for $25 + lab fee. APPLICATION DEADLINE: 5/30. CONTACT: Sr. Bernadette Fondy, Ph.D., Department of Biology, Seton Hill College, Greensburg, PA 15601 (412/834-2200, ext. 376).

SLIPPERY ROCK UNIVERSITY. SUMMER ACADEMY. COURSES: physics; chemistry; computer science; biology; anatomy; physiology. ENROLLMENT: 200. GRADE(S): 10/11/12. QUALIFIERS: top 25% of class; letters of recommendation from H.S.. DURATION/DATES: 3 weeks (6/29-7/17). EST. COST: $425. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/29. CONTACT: Mr. Louis Razzano, Associate Vice President for Academic Affairs, Slippery Rock University, Slippery Rock, PA 16057 (412/794-7229).

URSINUS COLLEGE. MATHEMATICALLY GIFTED PROGRAM. COURSES: mathematics. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: PSAT/SAT scores of 650+; recommendation of H.S.. DURATION/DATES: 2 3-week sessions (6/17-7/7; 7/9-29). EST. COST: $300 (room, board, fees). SCHOLARSHIPS: yes; tuition free. APPLICATION DEADLINE: open. CONTACT: Dr. Peter F. Small, Summer School Director, Ursinus College, Collegeville, PA 19426 (215/489-6617).

WASHINGTON & JEFFERSON COLLEGE. SUMMER SCHOOL ENRICHMENT PROGRAM. COURSES: biology; chemistry; mathematics; physics; psychology. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: H.S. transcript; recommendations. DURATION/DATES: 6/8-7/7. EST. COST: $140/credit. SCHOLARSHIPS: none. APPLICATION DEADLINE: open. CONTACT: Dean William W. Leake, Washington & Jefferson College, Washington, PA 15301 (412/223- 6006).

RESIDENTIAL

CARNEGIE MELLON UNIVERSITY. PENNSYLVANIA GOVERNOR'S SCHOOL FOR THE SCIENCES. RESEARCH/COURSES: biology; chemistry; physics; mathematics; and computer science. ENROLLMENT: 100. GRADE(S): 12. QUALIFIERS: PA resident; SAT scores; letters of recommendation; class rank, GPA; student essay; preliminary selection by intermediate unit; final selection by Department of Education state committee. DURATION/DATES: 6/28-8/1. EST. COST: none. SCHOLARSHIPS: full tuition, room and board for state selected students. APPLICATION DEADLINE: 2/13. CONTACT: Prof. Albert A. Caretto, Carnegie Mellon University, Doherty Hall 2201, Schenley Park, Pittsburgh, PA 15213 (412/268- 6669).

CARNEGIE MELLON UNIVERSITY. MEMS CORPORATE SCHOLARS PROGRAM. RESEARCH/COURSES: metallurgical engineering; materials science. ENROLLMENT: 20. GRADE(S): 12. QUALIFIERS: prior acceptance for admission to C-MU; commitment to engineering; SAT total of 1200+; upper 10% of class. DURATION/DATES: 10 weeks (6/20-8/15). EST. COST: none (includes salary of $525/month and room and board). SCHOLARSHIPS: yes (20). APPLICATION DEADLINE: 5/1. CONTACT: Herman Greenberg, Carnegie-Mellon University, 3317 Wean Hall, Schenley Park, Pittsburgh, PA 15213 (412/268-2708).

COLLEGE GIFTED PROGRAMS AT GEORGE SCHOOL, NEWTON. THE SUMMER INSTITUTE FOR THE GIFTED AT GEORGE SCHOOL (IN CO-OPERATION WITH THOMAS A. EDISON STATE COLLEGE). COURSES: BASIC; PASCAL; chemistry; physics; biology; linear algebra; astronomy; logic; algebra; geometry; pre-calculus; PSAT/SAT mathematics; calculus, veterinary medicine; humanities; art; music; sports. ENROLLMENT: 250. GRADE(S): 4-11. QUALIFIERS: 95th percentile on standardized tests; SAT/PSAT scores; IQ; identification by school district as gifted; strong teacher recommendation. DURATION/DATES: 3 weeks (7/5-25). EST. COST: $1250. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Carl Gottschall, or Dr. Philip W. Zipse, College Gifted Programs, 544 Bloomfield Ave., Verona, NJ 07044 (201/857-2521). See also College Gifted Programs at Blair School, Blairstown, New Jersey.

EDINBORO UNIVERSITY OF PENNSYLVANIA. SUMMER ACADEMY. COURSES: robotics; physics; ecology and environmental science; computer science; astronomy. ENROLLMENT: 12-20/class; 420 total. GRADE(S): 4-10. QUALIFIERS: applicant should demonstrate academic talent. DURATION/DATES: 2 sessions; 7/13-17 (ages 9-12); 7/20-24 (ages 12-16). EST. COST: $215. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/30. CONTACT: Ted Atkinson, Edinboro University of Pennsylvania, Doucette Hall 102, Edinboro, PA 16444 (814/732-2671).

LEBANON VALLEY COLLEGE. YOUTH SCHOLARS INSTITUTE. RESEARCH/COURSES: anatomy; botany; chemistry; computer science; ecology; embryology; genetics; mathematics; physics; physiology (animal); psychology (experimental). ENROLLMENT: 10-30. GRADE(S): 11/12. QUALIFIERS: highly competitive: based on recommendations of high school teachers and guidance counselors; student motivation and career goals; high school academic record. DURATION/DATES: 6/21-26; 7/12-17; 7/26-31. EST. COST: room, board, recreation $185/week. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/10. CONTACT: Dr. Dale Erskine, Biology Dept., Lebanon Valley College, Annville, PA 17003 (717/867-6176 • Dr. Erskine). Please direct all inquiries to Tammy L. Steele, 717/867-6204.

TEMPLE UNIVERSITY. THE TEMPLE UNIVERSITY SUMMER PROGRAM FOR GIFTED STUDENTS. RESEARCH/COURSES: cross-disciplinary presentations across broad academic spectrum. ENROLLMENT: 25. GRADE(S): 9-12. QUALIFIERS: recommendations by students' school counseling office. DURATION/DATES: 2 weeks (7/20-8/3). EST. COST: $400. SCHOLARSHIPS: full scholarships available. APPLICATION DEADLINE: 4/21. CONTACT: Ronald Hathaway, Ph.D., Anderson Hall 751, Temple University 022-32, Philadelphia, PA 19122 (215/787-8288).

PUERTO RICO

COMMUTER/RESIDENTIAL

CATHOLIC UNIVERSITY OF PUERTO RICO. MINORITY HIGH SCHOOL STUDENT RESEARCH APPRENTICE PROGRAM. RESEARCH: biomedical sciences. ENROLLMENT: varies. GRADE(S): 11/12. QUALIFIERS: GPA; research interest. DURATION/DATES: 8 weeks (6/1-7/30). EST. COST: none. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/30. CONTACT: Dr. Gabriel A. Infante, Dean of Sciences, Catholic University of Puerto Rico, Ponce, PR 00732 (809/844-4150, exts. 126, 335).

HUMACAO UNIVERSITY COLLEGE. MBRS HIGH SCHOOL APPRENTICESHIP. RESEARCH: chemistry. ENROLLMENT: 4. GRADE(S): 11/12. QUALIFIERS: 3.0 GPA. DURATION/DATES: 10 weeks (6/1-8/5). EST. COST: unknown. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/15. CONTACT: Dr. Antonio Alegria, Humacao University College, C.U.H. Station, Chemistry Department, Humacao, PR 00661 (809/852-2525, ext. 249).

RHODE ISLAND

COMMUTER

PROVIDENCE COLLEGE. ENVIRONMENTAL BIOLOGY AND BIOLOGICAL COMPUTER SIMULATION. COURSES: biology; computer science. ENROLLMENT: 32. GRADE(S): 10/11/12. QUALIFIERS: grades; recommendations; essay. DURATION/DATES: 6 weeks (6/15-7/23). EST. COST: $190. SCHOLARSHIPS: available. APPLICATION DEADLINE: 4/1. CONTACT: Dr. Robert I. Krasner, Biology Department, Providence College, Providence, RI 02918 (401/865-2239).

PROVIDENCE COLLEGE. GOVERNOR'S SUMMER PROGRAM IN SCIENCE AND MATHEMATICS. COURSES: chemistry; biology; physics; earth science; computer science; geology; mathematics. ENROLLMENT: 65. GRADE(S): 11/12. QUALIFIERS: grades; recommendations; class standing; SAT. DURATION/DATES: 6/23-7/18. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/1. CONTACT: Dr. Robert I. Krasner, Biology Department, Providence College, Providence, RI 02918 (401/865-2239).

RHODE ISLAND COLLEGE. GOVERNOR'S SUMMER PROGRAM IN SCIENCE AND MATHEMATICS. COURSES: chemistry; biology; physics; earth science; computer science; mathematics. ENROLLMENT: 65. GRADE(S): 11/12. QUALIFIERS: grades; recommendations; class standing; SAT. DURATION/DATES: 6/23-7/18. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 4/4. CONTACT: Robert E. Viens, Physics Department, Rhode Island College, Providence, RI 02908 (401/456-9659).

SOUTH CAROLINA

COMMUTER

UNIVERSITY OF SOUTH CAROLINA, COASTAL CAROLINA COLLEGE. YOUNG PEOPLE'S COLLEGE. COURSES: chemistry; marine science; computer science. ENROLLMENT: 100. GRADE(S): 5-8. QUALIFIERS: average to above average in school performance; high interest in summer study. DURATION/DATES: 4 weeks (7/13-8/6). EST. COST: $50/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/30. CONTACT: Audrey A. Garland, University of South Carolina - Coastal Caroline College, P.O. Box 1954, Conway, SC 29526 (803/347-3161 or 803/448-1481, ext. 2672).

UNIVERSITY OF SOUTH CAROLINA, COLUMBIA. CONCURRENT UNIVERSITY ENROLLMENT. COURSES: all disciplines. ENROLLMENT: no limit. GRADE(S): 11/12. QUALIFIERS: test scores; transcript; recommendation. DURATION/DATES: academic year. EST. COST: unknown. SCHOLARSHIPS: none. APPLICATION DEADLINE: variable. CONTACT: Admissions Office, University of South Carolina, Columbia, SC 29208 (803/777-4061).

COMMUTER/RESIDENTIAL

CLEMSON UNIVERSITY. SUMMER SCIENCE AND ENGINEERING PROGRAMMING. RESEARCH/COURSES: physics; mathematics; computing science; engineering; psychology. ENROLLMENT: 100. GRADE(S): 9-12. QUALIFIERS: teacher recommendation; BSAP, PSAT, SAT scores. DURATION/DATES: 1, 2, and 3 weeks (6/15-7/31). EST. COST: $500/2 weeks. SCHOLARSHIPS: none. APPLICATION DEADLINE: 4/1. CONTACT: Dr. Spurgeon Cole, 532 Clemson House, Clemson University, Clemson, SC 29634 (803/656-4762).

RESIDENTIAL

ERSKINE COLLEGE. RISE (RESEARCH IN SCIENCE AT ERSKINE). RESEARCH/COURSES: physics (holography); computer interfacing. ENROLLMENT: 25. GRADE(S): 10/11/12. QUALIFIERS: GPA; standardized test scores; teacher recommendation. DURATION/DATES: 3 weeks (6/15-7/3). EST. COST: $800. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1. CONTACT: Dr. William F. Junkin, III, RISE Director, Erskine College, Due West, SC 29639 (803/379-8822).

SOUTH DAKOTA

COMMUTER/RESIDENTIAL

SOUTH DAKOTA STATE UNIVERSITY. SUMMER SCIENCE CAMP. RESEARCH/COURSES: animal science; biology; chemistry; computer science; physics; psychology; engineering (electrical and mechanical); wildlife biology. ENROLLMENT: 20. GRADE(S): 8-12. QUALIFIERS: interested students; school recommendation. DURATION/DATES: 8/3-7. EST. COST: $50; $65 for room. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/1. CONTACT: Gary Pederson, Biology Department, Box 2207B, South Dakota State University, Brookings, SD 57007-0599 (605/688-6141).

*Planned, but not definite

TENNESSEE

COMMUTER

***EAST TENNESSEE STATE UNIVERSITY. SATURDAY MORNING ENRICHMENT PROGRAM.** COURSES: engineering; astronomy; bioengineering; aerospace; forensics criminology. ENROLLMENT: 112. GRADE(S): 7-12. QUALIFIERS: high ability students. DURATION/DATES: 3 hours/Saturday, September through November. EST. COST: $5/week. SCHOLARSHIPS: yes. APPLICATION DEADLINE: open. CONTACT: Dr. Hester Clark, P.O. Box 18940A, East Tennessee State University, Johnson City, TN 37614 (615/929-4478).

***MEHARRY MEDICAL COLLEGE. APPRENTICE IN SCIENCE PROGRAM.** RESEARCH: biological sciences. ENROLLMENT: 6. GRADE(S): 10/11/12. QUALIFIERS: B average; strong interest in science; inquisitiveness. DURATION/DATES: 6/8-7/31. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: unknown. CONTACT: Peter J. Dolce, Ph.D., Graduate School, Meharry Medical College, Nashville, TN 37211 (615/327-6212).

UNIVERSITY OF TENNESSEE, MEMPHIS. MINORITY HIGH SCHOOL STUDENT RESEARCH APPRENTICESHIP PROGRAM. RESEARCH: biomedical sciences; anatomy and neurobiology; biochemistry; microbiology and immunology; pharmacology; physiology and biophysics; experimental pathology. ENROLLMENT: varies, usually about 4. GRADE(S): 11/12. QUALIFIERS: interest in research career; outstanding H.S. GPA; aptitude for science and math; letters of recommendation from teachers; minority. DURATION/DATES: 8 weeks (June-August). EST. COST: none. SCHOLARSHIPS: students paid minimum wage. APPLICATION DEADLINE: unknown. CONTACT: Dr. Robert E. Taylor, Office of Academic Affairs, The University of Tennessee, Memphis, 62 South Dunlap, Memphis, TN 38163 (901/528- 5558).

COMMUTER/RESIDENTIAL

AUSTIN PEAY STATE UNIVERSITY. STUDY OF FLORA & FAUNA OF TVA'S LAND BETWEEN THE LAKES. RESEARCH: botany; zoology. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: GPA; ACT score; science teacher recommendation; 3 letters. DURATION/DATES: 8 weeks (6/15-8/20). EST. COST: none. SCHOLARSHIPS: six. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Benjamin P. Stone, Biology Department, Austin Peay State University, Clarksville, TN 37043 (615/648-7019).

***LINCOLN MEMORIAL UNIVERSITY. SUMMER SCIENCE SCHOLARS.** COURSES: computer science; biology; chemistry. ENROLLMENT: 25. GRADE(S): 12. QUALIFIERS: GPA of 3.0 or more. DURATION/DATES: 6/8-29. EST. COST: $375 (residential); $200 (commuting). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/1. CONTACT: Dr. John E. Copeland, Chairperson, Natural Science Division, Lincoln Memorial University, Harrogate, TN 37752-0901 (615/869-3611).

TENNESSEE STATE UNIVERSITY, MAIN CAMPUS. MINORITY HIGH SCHOOL RESEARCH APPRENTICESHIP PROGRAM. RESEARCH/COURSES: biology. ENROLLMENT: 2. GRADE(S): 11/12. QUALIFIERS: GPA of 3.0 or above; letters of recommendation; possible interview. DURATION/DATES: 8 weeks (6/1-7/24). EST. COST: none. SCHOLARSHIPS: room & board plus $1,200 stipend. APPLICATION DEADLINE: 5/4. CONTACT: Dr. James A. Adams, 3500 John Merritt Boulevard, Tennessee State University, Nashville, TN 37203 (615/320-3462).

***UNIVERSITY OF TENNESSEE, MARTIN. PACESETTER SUMMER HONORS PROGRAM.** COURSES: mathematics; basic engineering; chemistry; geology; physics; biology. ENROLLMENT: 25-30. GRADE(S): 12. QUALIFIERS: H.S. grades; recommendation of counselor and principal. DURATION/DATES: 6/15-7/20. EST. COST: Tennessee residents: $355 (residential); $167 (commuting); out-of-state: $685 (residential). SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/3. CONTACT: Dr. Ernest W. Blythe, Jr., Honors Programs, The University of Tennessee at Martin, Martin, TN 38238 (901/587-7436).

UNIVERSITY OF TENNESSEE, MEMPHIS. TENESSEE MINORITY HEALTH CAREERS PROGRAM. COURSES: health sciences; medicine; dentistry; pharmacy; nursing; allied health. ENROLLMENT: 78. GRADE(S): 10/11/12. QUALIFIERS: interest in and aptitude for a career in the health professions; outstanding H.S. GPA; letters of recommendation; Tenessee resident; minority. DURATION/DATES: 6 and 1/2 weeks (mid-June—August 1). EST. COST: none. SCHOLARSHIPS: stipend of approximately $100 per week and room and board. APPLICATION DEADLINE: 3/13. CONTACT: Robert M. Netherland, The University of Tennessee, Memphis, Minority Health Career Programs, 8 South Dunlap, Memphis, TN 38163 (901/528-6412).

RESIDENTIAL

TENNESSEE TECHNOLOGICAL UNIVERSITY. TENNESSEE TECH'S SUMMER SCIENCE PROGRAM FOR GIFTED AND TALENTED SECONDARY STUDENTS. COURSES: biology; computer science; physical science. ENROLLMENT: 60. GRADE(S): 7-10. QUALIFIERS: test scores; counselor recommendations; QPA; GPA. DURATION/DATES: 2 week sessions through the summer. EST. COST: $475. SCHOLARSHIPS: limited. APPLICATION DEADLINE: 5/15. CONTACT: Dr. Harvey G. Neufeldt, Box 5042, Tennessee Technological University, Cookeville, TN 38505 (615/372-3458).

UNIVERSITY OF TENNESSEE, KNOXVILLE. THE STOKELY SCHOLARS PROGRAM. COURSES: interdisciplinary overview with focus on issues and values. ENROLLMENT: 30/year. GRADE(S): 12. QUALIFIERS: references; GPA; test scores; essay; interview; leadership potential as evidenced by school and community activities. DURATION/DATES: 6/28-7/31. EST. COST: travel and pocket money. SCHOLARSHIPS: yes; awarded to all selected to participate. APPLICATION DEADLINE: 1/31. CONTACT: Dr. Lynn J. Champion, University of Tennessee, 231 Ayres Hall, Knoxville, TN 37996-1325 (615/974-2365).

TEXAS

COMMUTER

HOWARD PAYNE UNIVERSITY. EARLY ADMISSION FOR HIGH SCHOOL JUNIORS AND SENIORS IN SCIENCE AND MATH. COURSES: chemistry; physics; biology; computer science; mathematics; geology. ENROLLMENT: 6. GRADE(S): 11/12. QUALIFIERS: Recommendation by H.S. principal. DURATION/DATES: academic year and summer (6/1-7/8; 7/9-8/14). EST. COST: $103/semester hour. SCHOLARSHIPS: yes. APPLICATION DEADLINE: rolling admission. CONTACT: Ruth Ann Murphy, Dept. of Chemistry, Howard Payne University, Brownwood, TX 76801 (915/646-2512, ext. 227).

LAMAR UNIVERSITY. PRE-COLLEGE HONORS PROGRAM. COURSES: all freshman or sophomore level. ENROLLMENT: varies. GRADE(S): 12. QUALIFIERS: B+ H.S. GPA; PSAT/SAT scores; Counselor recommendation; interview. DURATION/DATES: academic year and summer (semester). EST. COST: $200 for up to 6 credit hours. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6 weeks prior to beginning of semester. CONTACT: Mr. Joseph C. Lambert, P.O. Box 10048, Lamar University, Beaumont, TX 77710 (409/880-8511).

LAREDO STATE UNIVERSITY. TEXAS PRE-FRESHMAN ENGINEERING PROGRAM (TEXPREP). COURSES: logic; algebra; trigonometry; introduction to computer science; introduction to engineering. ENROLLMENT: 50. GRADE(S): 8-11. QUALIFIERS: overall B average or better; various pre-requisites required for different courses at different grade levels. DURATION/DATES: 8 weeks (6/1-7/31). EST. COST: none. SCHOLARSHIPS: 50 limited to area schools. APPLICATION DEADLINE: 3/26. CONTACT: Dr. Ramon Alaniz, Laredo State University, West End Washington Street, Laredo, TX 78040 (512/722-8001).

TEXAS A&I UNIVERSITY. CONCURRENT HIGH SCHOOL ENROLLMENT. COURSES: all basic courses. ENROLLMENT: 10/semester. GRADE(S): 10/11. QUALIFIERS: Counselor recommendation; overall B GPA; meets eligibility for freshman admission (ACT/SAT scores). DURATION/DATES: academic year and summer (all semesters). EST. COST: Texas tuition & fees. SCHOLARSHIPS: none. APPLICATION DEADLINE: rolling. CONTACT: Ray Broglie, Director of Admissions, Admission - Campus Box 116, Texas A&I University, Kingsville, TX 78363 (512/595-3907).

TEXAS A&I UNIVERSITY. SOUTH TEXAS ENGINEERING, MATHEMATICS, AND SCIENCE (STEMS) PROGRAM. RESEARCH/COURSES: science; mathematics; engineering ; academic and career development and enrichment. ENROLLMENT: 275. GRADE(S): 7-12. QUALIFIERS: enrollment in pre-selected schools in South Texas; above average mathematics and science grades; test scores; teacher/counselor recommendation. DURATION/DATES: academic year and summer (5 week session). EST. COST: none. SCHOLARSHIPS: fees and tutition for concurrent enrollment and summer bridge students. APPLICATION DEADLINE: 60 days before start of term. CONTACT: Alfonso Lopez-V., Assistant to Dean of Engineering, Minority Engineering Student Affairs, Box 121, Texas A&I University, Kingsville, TX 78363 (512/595-2778).

TEXAS A&M UNIVERSITY AT GALVESTON. CONCURRENT ENROLLMENT PROGRAM FOR HIGH SCHOOL STUDENTS. COURSES: marine science; marine biology; marine engineering. ENROLLMENT: varies. GRADE(S): 11/12. QUALIFIERS: grades; administrative recommendations; personal interview with instructor. DURATION/DATES: academic year. EST. COST: varies ($20- $200/semester). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 9/1 (fall); 1/15 (spring). CONTACT: Dr. W.J. Wardle, Vice President for Academic Affairs, P.O. Box 1675, Galveston, TX 77553 (409/740-4408).

TEXAS CHRISTIAN UNIVERSITY. HIGH SCHOOL CONCURRENT ENROLLMENT PROGRAM. COURSES: multi-disciplinary. ENROLLMENT: unlimited. GRADE(S): 9-12. QUALIFIERS: admission application; PSAT/SAT/ACT scores; transcript; recommendations; interviews. DURATION/DATES: academic year (by semester) and summer. EST. COST: tuition and fees. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/1 (summer); 8/1 (fall); 12/1 (spring). CONTACT: Charleen Hayes McGilvray, Texas Christian University, 2800 University Drive, Box 32905, Fort Worth, TX 76109 (817/921-7490).

TEXAS TECH UNIVERSITY. TECH—PREP. RESEARCH/COURSES: mathematics; engineering; computer science; science. ENROLLMENT: 25-50. GRADE(S): 8-12. QUALIFIERS: grade average of 85+; teacher recommendation. DURATION/DATES: 8 weeks (6/8-7/30). EST. COST: none, except meals. SCHOLARSHIPS: none. APPLICATION DEADLINE: 3/20. CONTACT: Dr. Derald D. Walling, Department of Mathematics, Texas Tech University, Lubbock, TX 79409-4319 (806/742-2585).

UNIVERSITY OF HOUSTON, CLEAR LAKE. LOGIC IN SCIENTIFIC AND MATHEMATICAL THEORIZING. RESEARCH/COURSES: physics; biology; set theory; symbolic logic; probabilistic reasoning. ENROLLMENT: 150. GRADE(S): 4-10. QUALIFIERS: in gifted or talented program or A's and no more than one B in math and science courses for past year or (in exceptional cases) as a result of a detailed and personal recommendation by a classroom teacher. DURATION/DATES: 6/22-26. EST. COST: $75. SCHOLARSHIPS: not yet determined. APPLICATION DEADLINE: 5/30. CONTACT: P. A. Wagner, Institute for Logic and Cognitive Studies, Box 269, University of Houston-Clear Lake, Houston, TX 77058-1098 (713/488-9274).

UNIVERSITY OF TEXAS AT AUSTIN. HIGH SCHOOL—PARALLEL ENROLLMENT PROGRAM. COURSES: calculus; computer science. ENROLLMENT: 5. GRADE(S): 12. QUALIFIERS: GPA; H.S. mathematics course completion. DURATION/DATES: academic year (fall, spring semester). EST. COST: $220/semester. SCHOLARSHIPS: none. APPLICATION DEADLINE: 6/1. CONTACT: Stirling S. Miller, Little Campus Admissions Center, University of Texas at Austin, Austin, TX 78712 (512/471-7601).

UNIVERSITY OF TEXAS MEDICAL BRANCH, GALVESTON. SUMMER RESEARCH PROGRAMS FOR HIGH SCHOOL STUDENTS. RESEARCH: pediatrics; biochemistry; marine biology; physiology; microbiology; immunology. EN-

*Planned, but not definite

ROLLMENT: 16. GRADE(S): 11/12. QUALIFIERS: grades; ACT/SAT scores; demonstrated motivation for science; recommendation from science teacher or counselor; student essay. DURATION/DATES: 8 weeks (6/8-7/31). EST. COST: none. SCHOLARSHIPS: salary. APPLICATION DEADLINE: last week in March. CONTACT: Nathalie A. Vanderpool, Assistant Professor of Pediatrics, Director, School Health and Community Pediatrics, University of Texas Medical Branch, Galveston, TX 77550 (409/761-2683).

COMMUTER/RESIDENTIAL

***LeTOURNEAU COLLEGE. SUMMER INSTITUTE FOR ACADEMICALLY GIFTED PRECOLLEGE STUDENTS.** RESEARCH/COURSES: CAD/CAM; engineering design; precalculus; calculus; arts and sciences courses. ENROLLMENT: unknown. GRADE(S): 11. QUALIFIERS: SAT scores; H.S. transcripts; recommendations. DURATION/DATES: 6/15-7/24. EST. COST: $1,400 (residential); $800 (commuting). SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/15. CONTACT: Dr. Paul Kubricht, Director of Honors Program, P.O. Box 7001, LeTourneau College, Longview, TX 75607 (214/753-0231, ext. 242).

SOUTHERN METHODIST UNIVERSITY. COLLEGE PREPARATORY INSTITUTE. COURSES: mathematics; engineering. ENROLLMENT: 80+. GRADE(S): 10/11/12. QUALIFIERS: seniors must be in upper 50% of class; sophomores and juniors enrolled in gifted program; upper 10% of class; recommendations; PSAT scores. DURATION/DATES: 5 weeks (2 terms: 6/4-7/2 & 7/8-8/7). EST. COST: $585/3- credit course; $282 (room); $300 (meals). SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 5/15 (first term); 6/15 (second term). CONTACT: Shirley L. Smith, Associate Director, College Preparatory Institute, SMU Box 382, Dallas, TX 75275 (214/987-0488).

SOUTHERN METHODIST UNIVERSITY. PROGRAM FOR ACADEMICALLY TALENTED AND GIFTED STUDENTS (SMU/TAG). COURSES: mathematics; physics; computer science. ENROLLMENT: 60. GRADE(S): 8/9/10. QUALIFIERS: school records and test scores. DURATION/DATES: 3 weeks (7/12-31). EST. COST: $600 (commuter); $1050 (resident). SCHOLARSHIPS: limited aid based on need. APPLICATION DEADLINE: 5/1. CONTACT: Director , SMU/TAG Program, SMU Box 382, Dallas, TX 75275-0382 (214/369-9556).

TARLETON STATE UNIVERSITY. ADVANCED CHEMICAL PROGRAM FOR TALENTED HIGH SCHOOL STUDENTS. RESEARCH/COURSES: chemistry; biochemistry. ENROLLMENT: 6-8. GRADE(S): 11. QUALIFIERS: SAT/PSAT score of 1000; recommendations of chemistry teacher and counselor; interest in chemistry. DURATION/DATES: 2 5-week sessions (6/3-7/10; 7/10-8/20). EST. COST: $300 plus room and board. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/31. CONTACT: Dr. Jerry A. Darsey, Department of Physical Sciences, Tarleton State University, Stephenville, TX 76402 (817/968-9143).

TEXAS A&I UNIVERSITY. SUMMER HIGH SCHOOL RESEARCH PROGRAM. RESEARCH/COURSES: biology. ENROLLMENT: 10. GRADE(S): 11/12. QUALIFIERS: GPA; letters of reference. DURATION/DATES: 8 weeks (6/3-8/3). EST. COST: none. SCHOLARSHIPS: salary stipends. APPLICATION DEADLINE: 5/1. CONTACT: Dr. John C. Perez, Biology Department, Texas A&I University, Kingsville, TX 78363 (512/595-3796).

UNIVERSITY OF TEXAS AT DALLAS. THE CLARK FOUNDATION SUMMER RESEARCH PARTICIPATION PROGRAM. RESEARCH: cellular biology; molecular biology; chemistry; computer science; engineering; environmental science; geoscience; history of science; mathematics; neuroscience; physics; space science; etc.. ENROLLMENT: 18. GRADE(S): 12. QUALIFIERS: intellectual initiative; scientific curiosity; academic accomplishments; career objectives. DURATION/DATES: 10 weeks (6/1-8/30). EST. COST: none. SCHOLARSHIPS: students are paid a stipend of $130/week. APPLICATION DEADLINE: 2/15. CONTACT: Dr. David E. Dunn, Dean of Natural Sciences & Math, The University of Texas at Dallas, P.O. Box 830688, Mail Station FN32, Richardson, TX 75083-0688 (214/690-2187).

UNIVERSITY OF TEXAS AT SAN ANTONIO. HONORS PROGRAM FOR YOUNG SCHOLARS. RESEARCH/COURSES: mathematics; geology; psychology; others. ENROLLMENT: 130. GRADE(S): 11/12. QUALIFIERS: standardized test scores; H.S. grades; recommendations; statement of purpose. DURATION/DATES: 5 weeks (6/1-7/3). EST. COST: $120. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/1. CONTACT: Dr. Marjorie Smelstor, Office of the Vice President for Academic Affairs, The University of Texas at San Antonio, San Antonio, TX 78285 (512/691- 4224).

UTAH

COMMUTER

UTAH STATE UNIVERSITY. CHEMISTRY PRINCIPLES LABORATORY. COURSES: chemistry. ENROLLMENT: 20-30. GRADE(S): 11/12. QUALIFIERS: taking 2nd year or honors H.S. chemistry course. DURATION/DATES: academic year (winter quarter). EST. COST: $90. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 1st day of class. CONTACT: J.G. Morse, Department of Chemistry and Biochemistry, Utah State University, Logan, UT 84322-0300 (801/753-1342).

UTAH STATE UNIVERSITY. GEOLOGY FOR HIGH SCHOOL STUDENTS. COURSES: geology. ENROLLMENT: unknown. GRADE(S): unknown. QUALIFIERS: 2nd year or honors in earth sciences. DURATION/DATES: academic year (10 weeks). EST. COST: $100. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 1st day of class. CONTACT: Don Flesinger, Geology Department, Utah State University, Logan, UT 84322 (801/750-1274).

WEBER STATE COLLEGE. ADVANCED PLACEMENT LABORATORY PROGRAM IN BOTANY, MICROBIOLOGY, AND CHEMISTRY. COURSES: botany; microbiology; chemistry. ENROLLMENT: 30. GRADE(S): 11/12. QUALIFIERS: recommendation of teacher. DURATION/DATES: academic year. EST. COST: unknown. SCHOLARSHIPS: none. APPLICATION DEADLINE: unknown. CONTACT: Richard J. Reif, Center for Science Education, Weber State College, Ogden, UT 84408 (801/626-6160).

COMMUTER/RESIDENTIAL

BRIGHAM YOUNG UNIVERSITY. ADVANCED HIGH SCHOOL STUDIES PROGRAM. COURSES: computer science. ENROLLMENT: 200. GRADE(S): 11. QUALIFIERS: top 10% of class; completion of 2nd year algebra; grades; solutions to problems in application packet. DURATION/DATES: 2 weeks (8/3-14). EST. COST: $10 plus optional dormitory costs ($215). SCHOLARSHIPS: all participants receive full scholarships. APPLICATION DEADLINE: 4/1. CONTACT: Robert P. Burton, Ph.D., Professor of Computer Science, 230 TMCB, Brigham Young University, Provo, UT 84602 (801/378-3027).

WESTMINSTER COLLEGE OF SALT LAKE CITY. CONCURRENT ENROLLMENT. COURSES: biology; chemistry; physical sciences; physics; mathematics; computer science. ENROLLMENT: 10. GRADE(S): 12. QUALIFIERS: 2.5+ GPA; permission of H.S. principal and parents. DURATION/DATES: academic year and summer. EST. COST: $86/credit hour. SCHOLARSHIPS: none. APPLICATION DEADLINE: 2 weeks prior to registration. CONTACT: Betsy McKean, Director of Admissions, Westminster College of Salt Lake City, Salt Lake City, UT 84105 (801/484-7651).

VERMONT

COMMUTER

CASTLETON STATE COLLEGE. SPECIAL STUDENT PROGRAM. COURSES: biology; chemistry; geology; mathematics. ENROLLMENT: unknown. GRADE(S): 11/12. QUALIFIERS: GPA; 3 years mathematics minimum. DURATION/DATES: academic year. EST. COST: $300/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 8/1 (fall); 12/15 (spring). CONTACT: Gary Fallis, Admissions, Castleton State College, Castleton, VT 05735 (802/468-5611).

RESIDENTIAL

UNIVERSITY OF VERMONT. RESEARCH APPRENTICE PROGRAM (RAP). RESEARCH: medical college; college of arts and science; school of natural resources; college of agriculture; school of allied health. ENROLLMENT: 15. GRADE(S): 12. QUALIFIERS: recommendations; essay; grades; interest; courses; related experiences. DURATION/DATES: 7 weeks; July-August. EST. COST: unknown. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/30. CONTACT: Dr. N. R. Emmanuel, Nicholson Building, Division of Student Affairs, H1 South Prospect, University of Vermont, Burlington, VT 05401 (802/656-3380).

VIRGINIA

COMMUTER

CHRISTOPHER NEWPORT COLLEGE. HIGH SCHOOL ENRICHMENT PROGRAM. COURSES: biology; chemistry; physics; mathematics, computer science. ENROLLMENT: 45. GRADE(S): 10/11/12. QUALIFIERS: class rank; grades; test scores; recommendations; interviews. DURATION/DATES: academic year. EST. COST: $200/course. SCHOLARSHIPS: none. APPLICATION DEADLINE: 8/15 (fall); 12/15 (spring). CONTACT: Dean Keith F. McLoughland, Christopher Newport College, 50 Shoe Lane, Newport News, VA 23606 (804/599-7015).

COLLEGE OF WILLIAM AND MARY. SIGMA XI SUMMER RESEARCH INTERNSHIPS PROGRAM. RESEARCH: physics; chemistry; biology; psychology; geology; mathematics; computer science. ENROLLMENT: 16. GRADE(S): 12. QUALIFIERS: interest; recommendation. DURATION/DATES: 6-10 weeks (6/15-8/25). EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 5/1. CONTACT: Dr. Herbert Friedman, Department of Psychology, College of William and Mary, Williamsburg, VA 23185 (804/253-4255).

GEORGE WASHINGTON UNIVERSITY. SCIENCE AND ENGINEERING APPRENTICE PROGRAM. See listing in Washington, D.C.

JAMES MADISON UNIVERSITY. HIGH SCHOOL SPECIAL STUDENTS. COURSES: biology; chemistry; geology; mathematics; computer science; physics. ENROLLMENT: varies. GRADE(S): 12. QUALIFIERS: recommendation from H.S.; transcript; approval of department. DURATION/DATES: academic year and summer (7/13-8/5). EST. COST: $175. SCHOLARSHIPS: no. APPLICATION DEADLINE: one month in advance. CONTACT: Fay J. Reubush, Academic Services, James Madison University, Harrisonburg, VA 22807 (703/568-3730).

OLD DOMINION UNIVERSITY. SENIOR SCHOLARS. COURSES: biology; chemistry; mathematics; geology; oceanography; physics; computer science; psychology; environmental health; engineering. ENROLLMENT: 5-6. GRADE(S): 12. QUALIFIERS: top 10% of class; counselor recommendation; A average; SAT 1000 minimum or 100 PSAT minimum; must attend local (Hampton Roads) area high school. DURATION/DATES: academic year and summer (5/20-7/15). EST. COST: $80/credit hour. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/1 (fall); 11/1 (spring). CONTACT: Michael E. Malone, Old Dominion University, Hampton Blvd., Norfolk, VA 23508 (804/440-3637).

VIRGINIA COMMONWEALTH UNIVERSITY. MENTOR AND APPRENTICE PROGRAM IN BIOLOGY. RESEARCH: biology. ENROLLMENT: 4. GRADE(S): 11/12. QUALIFIERS: high school record; interview. DURATION/DATES: 8 weeks; summer. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: April. CONTACT: David Hartman, Virginia Commonwealth University, Richmond, VA 23284 (804/257-1674).

*Planned, but not definite

RESIDENTIAL

LYNCHBURG COLLEGE. HOPWOOD SCHOLARSHIP PROGRAM. COURSES: biology; chemistry; computer science; physics; psychology. ENROLLMENT: 160. GRADE(S): 12. QUALIFIERS: top 20% of class; high PSAT score; personal recommendation. DURATION/DATES: 1 week (7/26-8/1). EST. COST: $75. SCHOLARSHIPS: unknown. APPLICATION DEADLINE: 6/1. CONTACT: Dr. Julius Sigler, Associate Dean, Lynchburg College, Lynchburg, VA 24501 (804/522-8465).

VIRGINIA TECH. ACADEMIC ENRICHMENT CAMP FOR THE COLLEGE BOUND. RESEARCH/COURSES: computer math; science writing; history of engineering; and design laboratories. ENROLLMENT: 100/camp. GRADE(S): 8-10. QUALIFIERS: interest in program. DURATION/DATES: 6/21-27; 7/6-11; 7/12-18. EST. COST: $175/camp. SCHOLARSHIPS: need-based. APPLICATION DEADLINE: 5/1. CONTACT: Pamela Kurstedt, 333 Norris Hall, Virginia Tech, Blacksburg, VA 24061 (703/961-6641).

VIRGINIA TECH. VIRGINIA TECH COMPUTER CAMP. COURSES: computing (languages and applications). ENROLLMENT: 100. GRADE(S): 4-12. QUALIFIERS: for novice instruction: none; for advance placement: knowledge of PASCAL and recommendations of H.S. counselor and math teacher. DURATION/DATES: two weeks (7/5-17). EST. COST: $695. SCHOLARSHIPS: reduced tuition given verification of need. APPLICATION DEADLINE: 6/1. CONTACT: Norman R. Dodl, Room 400 Gym, Virginia Tech, Blacksburg, VA 24061 (703/961-4850).

WASHINGTON

COMMUTER

GONZAGA UNIVERSITY. HIGH ABILITY SCIENCE PROGRAM. COURSES: biology; chemistry; mathematics; physics; computer science. ENROLLMENT: 40. GRADE(S): 11/12. QUALIFIERS: GPA; permission of H.S.; demonstrated ability in science. DURATION/DATES: academic year; 8/15 (fall); 12/15 (spring). EST. COST: $25 (fee); $80 (course). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 8/1. CONTACT: Kirk Koenig, Gonzaga University, Spokane, WA 99258 (509/328-4220).

RESIDENTIAL

PACIFIC LUTHERAN UNIVERSITY. SUMMER SCHOLARS. RESEARCH/COURSES: physics; biology; environmental chemistry; mathematics. ENROLLMENT: 50. GRADE(S): 10/11. QUALIFIERS: grades; SAT; recommendations; essay. DURATION/DATES: 7/6-31. EST. COST: $675. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 4/15. CONTACT: Dr. Judith W. Carr, Associate Dean of Special Academic Programs, Pacific Lutheran University, Tacoma, WA 98447 (206/535-7130).

WEST VIRGINIA

COMMUTER

WEST VIRGINIA SCHOOL OF OSTEOPATHIC MEDICINE. SCIENCE ENRICHMENT PROGRAM. RESEARCH/COURSES: biochemistry. ENROLLMENT: individual to class-size. GRADE(S): 7-12. QUALIFIERS: academic performance; interest; teacher recommendation. DURATION/DATES: 12 hours over 6 weeks. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: as early as possible each semester. CONTACT: Dr. Judith O. Westerik, and John D. Burnham, Division of Functional Biology, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, WV 24901 (304/645-6270).

RESIDENTIAL

CONCORD COLLEGE. SUMMER ACADEMY. COURSES: mathematics; computer science; biology. ENROLLMENT: 50. GRADE(S): 11/12. QUALIFIERS: recommendations from H.S. counselors. DURATION/DATES: 4 weeks (6/15-7/10). EST. COST: $413 (for one course); $518 (for two courses). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 1/1 through 4/15. CONTACT: Mr. Chris Dayman, Assistant Professor of Art, Concord College, Athens, WV 24712 (304/384-3115, ext. 277).

WEST VIRGINIA WESLEYAN COLLEGE. WESLEYAN SUMMER GIFTED PROGRAM. COURSES: physics; algebra and trigonometry (combined course); creative writing; oriental history; computer science (the BASIC language). ENROLLMENT: 60 (30/session). GRADE(S): 7/10. QUALIFIERS: identified as gifted or national scores of 97 percentile+ on math or verbal sections of national standardized exam. DURATION/DATES: 2 weeks/session; 7/15-18 (beginning program) and 7/19-8/1 (advanced program)—students who have finished the first session (or have equivalent background) may return for an advanced session. EST. COST: $510. SCHOLARSHIPS: none. APPLICATION DEADLINE: 5/10. CONTACT: Joseph E. Wiest, Ph.D., and Jeanie A. Wiest, M.D., West Virginia Wesleyan College, Box 89, Buckhannon, WV 26201 (304/473-8000, ext. 8062).

WISCONSIN

COMMUTER

ASSOCIATION FOR HIGH-POTENTIAL CHILDREN, INC., AND THE UNIVERSITY OF WISCONSIN, EAU CLAIRE. MATH TALENT DEVELOPMENT PROGRAM (MTDP). COURSES: accelerated mathematics. ENROLLMENT: 15. GRADE(S): 6-9. QUALIFIERS: SAT/m 500+ plus SAT/v to equal at least 900; personal interview. DURATION/DATES: academic year. EST. COST: $75/semester. SCHOLARSHIPS: yes. APPLICATION DEADLINE: June. CONTACT: Alvin Rolland, Brewer 13, University of Wisconsin-Eau Claire, Eau Claire, WI 54702 (715/836-3517; 715/836- 5843).

BELOIT COLLEGE. PORTER SCHOLARS HIGH SCHOOL PROGRAM. COURSES: biology; geology; physics; chemistry; mathematics. ENROLLMENT: 40/year. GRADE(S): 12. QUALIFIERS: GPA; recommendation. DURATION/DATES: academic year. EST. COST: none. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 8/18. CONTACT: Dr. Robert Hodge, Director, Porter Scholars Program, Beloit College, Beloit, WI 53511 (608/365-3391).

MARQUETTE UNIVERSITY. YOUNG NURSING SCHOLARS PROGRAM. COURSES: introductory college nursing . ENROLLMENT: 10-25. GRADE(S): 11/12. QUALIFIERS: H.S. grades; class rank; recommendations of principal or guidance counselor. DURATION/DATES: academic year (Plan A, 1/12-5/8 Marquette University Campus; Plan B, 3/7-4/25 Chicago Area). EST. COST: tuition covered by scholarship; $40 for book. SCHOLARSHIPS: all students selected receive tuition scholarship. APPLICATION DEADLINE: 12/15 (Plan A) or 1/1 (Plan B). CONTACT: Dr. Rosalie Klein, Dean, College of Nursing, Marquette University, Milwaukee, WI 53233 (414/224-3812).

MARQUETTE UNIVERSITY. YOUNG SCHOLARS PROGRAM. COURSES: computer applications; computer graphics; materials science & manufacturing; industrial engineering. ENROLLMENT: 25/program. GRADE(S): 11. QUALIFIERS: B average or better; interest in engineering. DURATION/DATES: 13 weeks (1/17- 4/25). EST. COST: $30. SCHOLARSHIPS: n/a. APPLICATION DEADLINE: 1/9. CONTACT: Susan J. Michaelson, College of Engineering, Marquette University, 1515 W. Wisconsin Avenue, Milwaukee, WI 53233 (414/224-7134).

RIPON COLLEGE. ADVANCE COLLEGE EXPERIENCE (ACE). COURSES: chemistry; computer science; aviation. ENROLLMENT: 50-100. GRADE(S): 4-12. QUALIFIERS: identification by teachers/advisors as gifted or talented. DURATION/DATES: two weeks (7/13-24). EST. COST: $50/course. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/10. CONTACT: Nancy Livingston, Advance College Experience, P.O. Box 248, Ripon College, Ripon, WI 54971 (414/748-8109; 414/748-8119).

UNIVERSITY OF WISCONSIN, EAU CLAIRE. SUMMER INSTITUTE FOR HIGH-POTENTIAL STUDENTS. COURSES: computers; "hands on" mathematics; chemistry; aerospace rocketry; dinosaurs; engineering. ENROLLMENT: 500. GRADE(S): ages 3-16. QUALIFIERS: interest and motivation in course selected. DURATION/DATES: 3 2-week sessions (6/15-7/23). EST. COST: $40/class. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/21. CONTACT: Dr. Juanita Sorenson, Brewer 13, University of Wisconsin-Eau Claire, Eau Claire, WI 54702-4004 (715/836-5843).

UNIVERSITY OF WISCONSIN, STEVENS POINT. YOUTH IN COLLEGE. COURSES: wildlife biology; advanced topics in mathematics; computer science; environmental studies. ENROLLMENT: 15/course. GRADE(S): K-12. QUALIFIERS: 90%+ on standardized achievement test; student application and letter; 2 letters of recommendation. DURATION/DATES: 2 weeks (6/22-7/3). EST. COST: $75 (K-5); $85 (6-12). SCHOLARSHIPS: limited number available. APPLICATION DEADLINE: 5/23. CONTACT: Janet Boyle, COPS 458, University of Wisconsin at Stevens Point, Stevens Point, WI 54481 (715/346-4350).

COMMUTER/RESIDENTIAL

MARQUETTE UNIVERSITY. YOUNG SCHOLAR PROGRAM IN MEDICAL TECHNOLOGY. COURSES: medical laboratory science based on biology and chemistry. ENROLLMENT: 26. GRADE(S): 11/12. QUALIFIERS: upper 25% rank in class; grade of B or better in biology. DURATION/DATES: 3 consecutive Saturdays. EST. COST: $15. SCHOLARSHIPS: none. APPLICATION DEADLINE: variable. CONTACT: Ms. Alice M. Semrad, Medical Technology, Marquette University, Milwaukee, WI 53233 (414/224-7566).

UNIVERSITY OF WISCONSIN, EAU CLAIRE. SCIENCE SUMMER INSTITUTE. COURSES: astronomy; aviation science; medical biology; action electronics; physics; chemistry; veterinary medicine; experimental psychology; meteorology; computer programming. ENROLLMENT: 250. GRADE(S): 7-12. QUALIFIERS: recommendations by 2 teachers; handle abstract concepts well; work 2 or more years above grade level; score 90th percentile or above in mathematics and science on standardized tests. DURATION/DATES: 2 weeks (7/13-24). EST. COST: $400 (residential); $190 (commuter). SCHOLARSHIPS: yes. APPLICATION DEADLINE: 3/1. CONTACT: Dr. Juanita Sorenson, Brewer 13, University of Wisconsin-Eau Claire, Eau Claire, WI 54702-4004 (715/836-5843).

UNIVERSITY OF WISCONSIN, STEVENS POINT. ELECTRON MICROSCOPE TECHNIQUES. COURSES: biology. ENROLLMENT: 3. GRADE(S): 12. QUALIFIERS: H.S. teacher recommendation. DURATION/DATES: academic year. EST. COST: $15. SCHOLARSHIPS: possible. APPLICATION DEADLINE: 9/15 (fall); 1/15 (spring). CONTACT: Dr. Virgil Thiesfeld, and Dr. Joseph Harris, Biology Department, University of Wisonsin-Stevens Point, Stevens Point, WI 54481 (715/346-2159; 715/346-2420).

UNIVERSITY OF WISCONSIN, SUPERIOR. SCIENCE CAREER EXPLORATIONS. COURSES: multiple physical and biological career science offerings. ENROLLMENT: 80. GRADE(S): teenage. QUALIFIERS: upper 2 quartiles in standing. DURATION/DATES: 5 weeks (June-July). EST. COST: $200/week. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 6/15. CONTACT: Nancy Vilhauer, University of Wisconsin-Superior, Grants and Special Programs, Superior, WI 54880 (715/394-8303).

UNIVERSITY OF WISCONSIN, SUPERIOR. YOUTH SUMMER PRE-COLLEGE FOR TEENAGERS. COURSES: biology; chemistry; mathematics; geology; computers; economics; astronomy; medical technology; ecology. ENROLLMENT: 20. GRADE(S): 7-12. QUALIFIERS: career interests in science. DURATION/DATES: 4 weeks (6/15-7/17). EST. COST: $190 (resident)/week; $110 (commuter)/week. SCHOLARSHIPS: yes. APPLICATION DEADLINE: 5/31. CONTACT: Dr. A.B. Dickas, University of Wisconsin-Superior, 203 Administration, Superior, WI 54880 (715/394-8311).

*Planned, but not definite

UNIVERSITY OF WISCONSIN, MADISON. ENGINEERING SUMMER PROGRAM FOR MINORITY HIGH SCHOOL STUDENTS. COURSES: pre-calculus; calculus; statics and strength of materials; chemistry; computer science; various engineering seminars; communication skills. ENROLLMENT: 40. GRADE(S): 10/11/12. QUALIFIERS: 10/11 grade: must have completed Algebra I and a science course; 12 grade: must have completed at least two mathematics courses (Algebra and Geometry) and two science courses. DURATION/DATES: 8 weeks. EST. COST: $750. SCHOLARSHIPS: yes. APPLICATION DEADLINE: unknown. CONTACT: Alfred L. Hampton, College of Engineering, Rm. 23, General Engineering Building, University of Wisconsin-Madison, 1527 University Avenue, Madison, WI 53706 (608/262-7764).

* * * *

*Planned, but not definite

PROGRAMS CONDUCTED BY SCIENCE SERVICE

WESTINGHOUSE SCIENCE TALENT SEARCH

For students in the last year of secondary school. The most prestigious science scholarship program in the country. Its finalists have gone on to win five Nobel Prizes and two Fields Medals.

The annual Westinghouse Science Talent Search, now completing its 46th year, identifies high school seniors in the United States talented in science, engineering, and mathematics.

Greatest emphasis in the selection is placed on evaluation by scientists of an independent research project done by the student and secondarily on answers to open-ended questions designed to elicit evidence of the student's interest and creativity in science.

Forty Winners (finalists), selected from among three hundred Honorable Mentions, receive an all-expenses-paid trip to Washington, DC, to compete for scholarships and awards totaling $140,000.

Any student is eligible to enter the competition who is in the last year of secondary school (public, private or parochial) in the United States, Puerto Rico, Guam, Virgin Islands, American Samoa, Wake and Midway Islands, and the Marianas; and any American student in the last year of secondary school attending: (1) a Department of Defense Dependents School or an accredited overseas American or International School, (2) a foreign school as an exchange student, or (3) a foreign school because his/her parent(s) work and live abroad.

The student's project must be in the physical sciences, biological sciences (excluding vertebrate experimentation), behavioral and social sciences, engineering, or mathematics.

Teachers or other school officials must request entry materials for the students. These materials will be available about September 1, 1987 for the 47th Science Talent Search.

A student who has worked in a scientist's laboratory and who has used material from that experience as part of the project report, must submit a statement from the scientist giving descriptive and explanatory evidence of independence and creativity.

Entries must be received at Science Service no later than midnight, December 15, 1987 for the 47th Science Talent Search.

For more information, write to:

Science Talent Search
1719 N Street, NW
Washington, DC 20036

INTERNATIONAL SCIENCE AND ENGINEERING FAIR

The International Science and Engineering Fair, the "World Series" of science fairs, is held annually with some 650 student contestants from affiliated fairs in the United States and a number of foreign nations. It culminates a selection process involving thousands of school and regional fairs, their student participants, and their judges from science, medicine, engineering, and education.

The ISEF is for students from the 9th, 10th, 11th, and 12th grades, two from each of the more than 350 affiliated fairs. Costs for the entry fee, as well as for transportation, meals, and housing of the finalists and accompanying adults, are borne by the affiliated fairs.

More than 500 competitive awards are sponsored by General Motors and the Special Awards organizations of the ISEF. This requires one full day of judging and three different awards presentation programs.

ISEF Grand Awards are sponsored by General Motors in thirteen different discipline categories. They also sponsor two special awards of an all-expenses-paid trip to the Nobel Prize Ceremonies in Stockholm, Sweden. Boys and girls compete on an equal basis within each category.

The Special Awards are given for work in a variety of disciplines by a variety of organizations. Special Awards categories are determined by the organizations giving the awards and may consist of a single category or several categories.

The International Science and Engineering Fair is also an educational experience for the participants in several different ways. It is one of the few competitions in the world where the judges (more than 800) outnumber the contestants. Finalists say that one of the most enjoyable (though sometimes scary) aspects is the opportunity to be interviewed by the scientists, engineers, doctors, and mathematicians who are the judges. There is ample time to look at and study the exhibits of the other students and to exchange shop talk with them about their projects and the work that they have done.

A number of tours are also organized for the students and their adult escorts to universities, research centers, industry, and places of cultural and historical interest.

More and more college admissions officers are looking at achievements in extracurricular activities such as being chosen to attend the ISEF or winning in it. Their interest stems from growing research evidence which suggests that such achievements are indicators of abilities like originality, persistence, or initiative which are not shown by regular grades or tests, but which are important for success in a scientific career.

For rules and other information about the ISEF, write to:

International Science and Engineering Fair
1719 N Street, NW
Washington, DC 20036